OBSERVATIONS
ON
THE LOCAL DISEASES
TERMED MALIGNANT.

BEING A SEQUEL TO THE PAPER PUBLISHED IN VOL. XV.
OF THE SOCIETY'S TRANSACTIONS.

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PART III.

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THE paper which I now present to the Society, is designed as a sequel to the communication on the subject of Malignant Diseases, published in the fifteenth volume of the Society's Transactions. In that paper, after some general preliminary remarks, I described the several forms of cancerous diseases affecting the head familiar to my observation. I now proceed to describe those of the trunk and extremities, and in the following order.

1stly. The external conglomerate glands, viz., the salivary and mammary.

2dly. The organs of generation and urine, male and female.

3dly. The viscera of the chest and abdomen.

4thly. The superficial regions of the body, trunk, and extremities.

THE SALIVARY GLANDS.

The salivary glands, except in the “cynanche parotidæa,” are seldom attacked by acute inflammation, but are sometimes enlarged and hardened by chronic strumous inflammation, still retaining their figure. They are rarely the subjects of primary scirrhus. In the scirrhus tumours and cancerous ulcers of the mouth and tongue, they become indurated and diseased; but in all cases they are slow to suppurate, whether affected by common or specific inflammation; in this respect differing from the conglobate glands. The enlargement, also, is often not conspicuous, when the hardness of these glands is considerable; and I have repeatedly noticed that they are not in any way altered by the existence of disease in the vicinity, by which the absorbent glands are affected.

I have more than once known a lymphatic gland, overlaying and adherent to the parotid, removed by the knife, for what was considered to be a malignant enlargement. In some instances this has proved to be a scrofulous degeneration of the gland, *sociæ parotidis*, invested by so firm a cyst as to have led to doubts of its nature. Some years ago, a man from

the neighbourhood of Rochester came to my house much reduced and terrified by a very free hæmorrhage, following the extensive slough of an ulcerated tumour of the parotid, reputed to be a cancer, to which an itinerant empiric had applied an arsenical caustic. The wound, however, cleaned and cicatrized soundly, though with much puckering. I have very recently learned that this man retains his health, though a similar tumour occupies the place of the former, with which he wisely declines to interfere.

The sublingual and submaxillary glands may be the seat of scirrhus inflammation, when the tongue is sound. But I do not recollect a case in which the affection of these glands was not consecutive to that of the skin, or of some neighbouring part. A twelve-month after the extirpation of a cancer of the lip, I have seen a large immoveable tumour, involving both these glands, and occupying the entire hollow of the lower jaw to the os hyoides. Its situation and connexions were such as to defy operation, and the man soon died (a cancerous fungus springing from a lancet-wound in front of the tumour) of hæmorrhage and suffocation. Upon the whole, scirrhus cancer is more common in the superjacent skin, and medullary cancer in the lymphatic glands, in the region in which the salival glands are situated, viz., at the angle and within the horse-shoe of the lower jaw.

The "thyroid gland," a term which, though familiarized by custom, is unauthorized by any thing we know of this structure, I have seen involved in a thoracic medullary tumour, but never the subject of scirrhus inflammation. Its diseases are, in my experience, remarkably simple, being confined to a parenchymatous enlargement, the solid and encysted forms of bronchocele. In Desault's works, a tumour of this part is described to have followed upon violent extension of the neck, and was by him extirpated.

THE MAMMARY GLAND.

No texture of the body is subject to a greater variety of morbid affections than this. The neuralgia of this organ, a well known complaint, exists in a complicated as well as in a simple form. In the generality of cases of irritable breast there is no perceptible change of structure, but it is sometimes superadded to the slight and partial thickening which results from a blow or a wound, and sometimes to a simple enlargement of one or more lobes of the gland, or a small tubercle or encysted tumour attached to it. The principal morbid affections of this organ, are,

1st. The phlegmonous abscess in the connecting cellular membrane of the gland protruding sometimes above and sometimes below, or to one side of the nipple, and which is perfectly dissimilar to abscess resulting from obstruction of the milk ducts. It occurs in young full-bosomed women, often acquires consi-

derable size, and greatly disfigures the outline of the breast. 2nd. The proper mammary or milk abscess. 3d. The firm, smooth, subcutaneous tubercle, round or oblong, of various size, and perfectly moveable. 4th. The soft uneven tumour resembling, as if an overgrowth, the glandular structure, and not detachable from the gland. 5th. An udder-like tumour, having a smooth white homogeneous section, resembling that substance. 6th. The varicous tumour of the lacteal ducts, being a portion of the gland, irregularly knotted, and hard to the touch, indistinctly bounded, and moveable only with the breast. 7th. The cellulous tumour, being an enormous pendulous elongation of cellular texture and skin, of an equable, doughy consistence, chiefly inconvenient from its volume and weight. 8th. The hydatid tumour, so called, i. e. a combination of cysts of various extent, containing a gelatinous fluid, and occupying the place of the gland. The above are all innocent, all recognized and distinguishable forms of disease, if not always readily from each other, at least from the malignant diseases of this organ.

The following are the original forms of cancer of the breast; scirrhus, and medullary. 1st. The scirrhus tubercle, of impenetrable hardness, irregular surface but distinct outline, at first moveable, but tending as it increases to become fixed, first to the skin indenting the surface, and then to the muscle beneath. 2d. The encysted tumour, containing a straw or coffee-coloured fluid, with a berry or fringe-

like growth, from one or more points of its internal surface; the cyst is generally subdivided into compartments, or there are several contiguous cysts. This I regard as the primitive form of medullary cancer when it appears in the region of the mamma.

There are equivocal or bastard forms of scirrhus, deviating in their commencement from the standard above described, as,

1st. The partial induration and enlargement of the lobules and ducts of the gland, most common in single or sterile women, which, when near or behind the nipple, produce more or less indentation of this part, and a bloody oozing from its orifice. This is after some time followed by an excoriation, or an indolent superficial ulcer having an even glossy and florid surface, and from its situation, and especially from the thickened condition of the parts beneath, indisposed to heal. The pain is transient and not acute, the subject delicate and frequently has traces of scrofula. This, though of strumous origin, is capable of assuming the action of cancer, and provided it be not removed, the chances are, that, 'to this condition it must come at last.' The diagnosis is always embarrassing; there may be enough to justify the surgeon in saying 'this is not cancerous,' but he cannot feel at liberty to add, 'nor will it ever become so.'

2ndly. An indolent or passive scirrhus;—a form which progresses so slowly, and is productive of so

little disturbance to the system, that but for the alarm of the patient's mind at the bare idea of cancer, the medical man would not be made acquainted with its existence. By an indolent scirrhus I mean an incompressible permanent tumour, possessing for many years no distinguishing character of that disease; but in a deranged state of health assuming its genuine character, and at a particular period of life breaking up into a cancer. I do not entertain a doubt that such a tumour may be and often is absorbed in its first stage, and need not therefore of necessity follow this course. I feel assured that most of the hard breast tumours of young and middle aged women admit of being reduced by the iodine or the mercurial ointment if early resorted to, and steadily persevered in, having often succeeded in procuring their absorption by such means, when, from the characters they presented, I should otherwise have felt compelled to urge their removal by operation. I have likewise known them gradually reduced, and at length absorbed by equal and persevering compression, as by strips of soap and adhesive plaster, or what is better, by an elastic roller passed many times round the chest with layers of the Amadou smoothly interposed between the turns of the roller. A certain degree of adhesion between the breast and pectoral fascia in these cases, rendering it partially fixed, yields, as the volume of the tumour diminishes. Nothing is more certain than the susceptibility of absorption in many such tumours at an early stage of their existence.

If a scirrhus or any other tumour is so large as to occupy a considerable portion of the gland, so much adhesive matter is thrown out around it, and into the interstices of the lobes, as to give great increase of weight, much irregularity, and impenetrable firmness to the swelling. Pressure in this case is not enduring. An habitual irritant acting upon the skin keeps the swelling in check and sometimes partially reduces it: e. g. muriate or acetate of ammonia, distilled vinegar, lotions of camphorated spirit, acetate of lead, and spirit. vini. rect., etc. The muriated tincture of iron, or the tincture of iodine, or a solution of lunar caustic sufficiently diluted to admit of their constant application, discolouring and causing the exfoliation of the cuticle, and if still persisted in, a free oozing from the cutis, I have also employed with similar effect. The solution of chloride of lime effected the absorption of a large tumour, regarded by competent authorities as scirrhus, in a lady, whose other breast had been extirpated for that disease. Many months elapsed before the swelling finally disappeared, and there remained deep folds of integument bound down to the chest, as if the extirpation had been freely practised. This lady not long afterwards died of asthma from diseased lungs; the scirrhus tubercle appearing not only in the chest, but in several of the abdominal viscera; and I have seen the same symptoms and appearances following the spurious cicatrization of the cancerous ulcer under the same application, and also after a spontaneous partial absorption of a scirrhus tumour leaving these

folds from adhesion to the muscle. The solution employed was half an ounce of the chloride in half a pint, and afterwards six ounces of distilled water. The effect of this application to cleanse and in a great degree to level the edges of cancerous ulcers, and induce a process of spurious skinning, has several times fallen within my knowledge.

Chronic tumours of a suspicious character, accompanied by superficial glossy ulceration, I have seen greatly diminished by various medicaments and vapour baths; but the tumour never quite removed nor the ulcer soundly healed.

It is remarkable that a granulated or spiculated tumour, that is, a congeries of rounded or angular prominences combined with hardness has been generally regarded as the definition of a true scirrhus; this I suspect has resulted from studying the disease where it most frequently exists, in the female breast. It is a character incidental to the structure of that organ rather than proper to the disease, being produced by slow adhesive inflammation of the lobes and tubes, in and among which the matter of scirrhus is deposited. The rounded or granulated tumour occupies the loose lobular texture, and is situated toward the base of the gland; the angular or spiculated tumour is situated more among the tubes and towards the nipple; in each instance the thickening of the glandular and tubular structure concurring

with the absorption of the interstitial membrane. Many tumours, not allied to scirrhous, have this character strongly impressed on them, belonging to the class No. 6, denominated above 'varicous tumours'*. Although the granular and spicular characters are therefore not proper to the disease, but to the organ, they serve respectively to mark two principal differences of form in these tumours, and determine their peculiarities of size, situation, and growth. The scirrhous granulated tumour, for example, occurs chiefly in large breasted women about or after the decline of the catamenia; it acquires great size, and becomes gradually but at length firmly adherent, of a stony hardness, and depressed in the centre. This depression at length turns convex, and the skin inflamed and ulcerating, discharges, and forms a sore

* I knew a poor woman who had a large breast removed for the varicous tumour under much alarm at the development of the same affection in the remaining breast, and hesitating whether to consent to the removal of it, to which she was strongly urged. She followed my advice in refusing the operation and continues, though several years have elapsed, in good health.

Such tumours are not generally painful, nor do they disturb the health otherwise than as they create anxiety. In young women, however, of the hysteric temperament, these, as well as all tumours, are subject to be the seats of pain. In a young lady in whom the varicous tumour was unusually developed, it was exceedingly painful, especially about the menstrual period. The pain was of an obtuse kind. I have now under my observation a similar case in which both mammæ of a young single lady are affected, and have been occasionally extremely painful. The pain is always exasperated by topical applications, which are likewise of little if any avail in diminishing such swellings.

which is never afterwards healed. Up to a late period the health remains good. The situation is mostly upon the axillary side of the mamma at the edge of the great pectoral muscle. There is seldom any affection of the axillary glands. The ulcer is of course unable to heal upon the centre of such a tumour, so indurated. Eventually after an uncertain interval it turns cancerous, and assumes the well known characters of that ulcer. .

The spiculated tumour is smaller and more contiguous to the nipple. This is at first circumscribed and freely moveable, but soon becomes fixed, and the nipple drawn in ; or if the nipple be flat, the skin covering the tumour is depressed : the absorbents are cord-like at the edge of the pectoral muscle, and the axillary and clavicular glands indurated. It is this tumour which sometimes projects in one or more firm nodular tubercles which assume a florid and polished surface long before ulceration commences.

Thus in scirrhus tumours of the female breast, the two principal distinctions are, 1st. A tumour massive and round like a cricket ball, and occupying a large proportion of the gland, as if embedded in its centre ; in which case the breast is large, and the quantity of covering which it affords gives roundness and elasticity to the tumour, notwithstanding its hard nucleus. 2nd. A circumscribed and superficial tumour of an equal stony hardness throughout, small, knotted, and irregularly shaped, in which case the

breast is thin, or of small volume. These differences as before observed, depend, not on the size of the tumour, but of the breast, not on the texture but the position of the scirrhus, and materially influence the alteration in figure, the formation of adhesions and involvement of the nipple, and I think the rate of progress of the disease ; the last described being considerably the most rapid*.

The principal varieties of scirrho-cancerous action in the breast are,

1st. The disposition mentioned in a former part of this paper to cutaneous erythema and tubercle, and herpetic instead of excavating ulceration. This I have seen equally in spare and corpulent patients. There is a cancerous tubercle of the skin which appears upon the breast as in other parts, connected with a remarkable change in the texture of the skin. The affection of the skin in the case I am describing is I believe primary. It consists of a brawny induration with extension of the areolæ, a coarseness such as this texture presents when viewed through a magnifier, and which gives it a resemblance to pig's skin. Isolated tubercles of various sizes appear at considerable distances apart ; the texture of the subjacent cellular membrane is enormously thickened and has a cartilaginous hardness ; and the breast,

* Allowance is of course to be made for the stage of the disease in all cases.

when the skin undergoes this change upon that organ, is early and immoveably fixed to the chest.

2ndly. A species of dry gangrene succeeding to the ulceration of the skin and parts beneath, having little if any appearance of living granulation in edge or surface, or any thing resembling purulent secretion. The edges are livid, tuberculous, retorted, but the bed of the wound is occupied by a dark tenacious crust or slough, which separates slowly in flocculent masses, still leaving a dead surface; or if a granulating spot, like an oasis, appears, it almost immediately fades and turns sloughy. The discharge is a watery ichor, fetid, often copious. This peculiarity I have observed in spare subjects where the cellular membrane has been very scanty, and entirely devoid of adeps. I believe the defect of cellular membrane, as in the return of the disease after operation, partly conduces to it; but it is also connected with extreme constitutional irritability and exhaustion.

I have witnessed several examples of the medullary tumour commencing in the immediate neighbourhood of the female breast. The two most remarkable were in plump but delicate women between 30 and 40 years of age, exhibiting the strumous temperament. The following case exemplifies the appearance of the disease when seated in the female breast; but this imparts to it no character differing from that which it assumes in other parts of which cellular texture enters into the composition.

Medullary tumour of the breast, thyroid gland, &c.

Anne Jenkins, æt. 42, unmarried, perceived a small tumour on the right mamma eight months since, the catamenia having ceased for two years. During the last two months its growth has been rapid, and it is now very large, adhering partially to the pectoral muscle; and the adhering integument is red approaching to livid. It gives an obscure sense of fluctuation in many parts, in others is hard; at one spot where is the cicatrix of a lancet-wound, made some time since by a surgeon who thought it contained a fluid, there is now a nipple-like projection yielding and elastic. The proper nipple retains its natural appearance, being unadherent to the tumour. She has had good general health till lately. Pulse now quick and feeble, occasional sharp pains at the epigastrium, and rest disturbed.

April 18th. The projection and discolouration are much increased and the surface begins to slough: from this time to the middle of August following the fungus went on increasing, until it attained an enormous size; large portions of it sloughed out occasionally and emitted a very fetid discharge, and about a month before her death, which happened on the 16th September, nearly the whole mass sloughed off, leaving a deep, extensive, and very foul ulcer in the right pectoral region.

Sectio Cadaveris. A collection of thick, dirty-

looking fetid pus lay between the sac and pectoral muscle. The sac was very dense. On slicing the small remains of the diseased structure, it exhibited an appearance resembling the medullary part of the brain, in some parts finely vascular, in others pale; the lowermost part of it was a firmer substance, white and homogeneous like udder. The thyroid gland was in four distinct lobes; two in front of the trachea of the natural size of the gland, each containing a dense cyst of a brown-yellow colour, with white transverse bands: the two lateral lobes running up the neck as far as the hyoides were like masses of indurated fat, of an equal and firm texture. The thoracic and abdominal viscera were sound; the right kidney had several cells containing masses of yellow transparent gelatine, and resembling the structure in the thyroids.

The tumour with which alone this is liable to be confounded is the hydatid breast, as it is called, and there is sufficient resemblance in the rounded outline, the elastic resistance, the absence of glandular affection, the distressing inconveniences of size, weight, and distension, the turgid veins and livid discolouration of the surface, to create some hesitation. But in the medullary disease it seldom happens that the health is not affected, whereas in the hydatid breast it is undisturbed; the figure of the medullary tumour is less uniform, being marked by dark tuberos elevations and immoveably fixed to the side by the prolongations of the diseased growth in one or more parts of its circumference; whereas the hydatid tumour, not-

withstanding its oftentimes enormous bulk, is globular, and remains perfectly detached and pendulous. The main distinction is, that the mammary gland is not, in my experience at least, the seat of the medullary or fungoid disease, as it is of the hydatid, but I shall speak to this point in a future part of this paper. The tendency of the hydatid tumour to reproduction after operation has led to an opinion that the disease is of a malignant character; this is however erroneous, and can only have arisen from the common circumstance of its reappearance owing to the difficulty of eradicating the extended nidus of the disease in the cellular texture; for where an inclosed and insulated body like the testis is the seat of it, I never knew an instance of its return after extirpation. The disease destroys by irritation where it returns for a second and a third time, as I have known it to do after removal. The cysts when it acquires great bulk inflame and suppurate, so that the discharge is its own glairy secretion mixed with pus. It should be removed before it acquires such magnitude by an incision far beyond the confine, if possible, of changed structure*.

In proportion as the malignant fungus is recent and of small dimension, is the difficulty of diagnosis from the hydatid cyst, for the fungus, as I have before said, ordinarily commences on the interior of a cyst containing a fluid, from the vascular lining of which it hangs like a

* If allowed to acquire a great magnitude, it is difficult by any precaution to prevent its recurrence.

fringe, and it is common to find more than one, often several contiguous cysts in the early stage of the disease. As the fungi grow, the cysts burst, and are blended in the same mass. From this account, it will appear, that there is sufficient analogy between the hydatid and fungoid disease in its incipient state, to require more aids to diagnosis than those derived from manual examination. We sometimes meet with puzzling analogies in these diseases, as in the following case.

A woman applied to me in July, 1816, with an enormous swelling of the breast, sixteen inches in circumference, from the centre of which sprung a cauliflower excrescence. A year previous to this, a cyst, occupying the position of this excrescence, had been tapped at Guy's Hospital, and three quarters of a pint of brown-coloured fluid drawn from it; the cyst continued oozing for some time, and then healed. Shortly afterwards, the cyst again burst, and discharged a quantity of fluid, and since this second opening, the fungous excrescence had been growing to its present bulk. The pain was smarting and aching, not lancinating, and the health was undisturbed. Large loaded veins ran over the swelling, the fungus was irritable, and bled on the lightest touch. On the 28th of July, the tumour was very freely removed, and the woman left the hospital well, on the 12th of the following month. On dissection, the breast was found to be an encysted tumour, subdivided into cells containing an unhealthy pus, and a fungus, bearing, it was thought, a strong resemblance

to the medullary carcinoma, and beside this, was a firm knob or tubercle, which had the gristly feel and section of scirrhus.

The history of this case furnishes an explanation of these appearances. The disease was an hydatid tumour, the principal cyst had been emptied—a fistulous ulcer established itself, whence a fungus arose, as is generally seen in large cysts when communicating by a small orifice with the surface,—the condensation of the intersecting walls of the cysts was produced by artificial pressure employed after the first opening, for the purpose of obliterating the cyst. The presence of puriform fluid shewed the existence of inflammation in other parts, in another stage. Similar appearances, I suspect, have given origin to a belief that the medullary and scirrhus cancer were coexistent in the same or contiguous textures. Closer examination will demonstrate that the resemblance is imaginary.

No description can comprehend all the varieties of tumour to which this organ is liable, nor does any share of experience enable the nicest observation to suggest an infallible clue to their nature. We have sometimes only manipulation to depend upon, which is an art imperfectly cultivated by scientific surgeons. Cases now and then arise about which the most accurate observers are liable to error. True it is, this does not frequently happen in the distinction between innocent and malignant growths. The several species

of innocent tumours already enumerated may all be distinguished from scirrhus with comparatively little difficulty; but if any doubt exists we must consider the age, habits, and circumstances of the patient. For example, we should ascertain if marks of scrofula are present, if the uterine functions are regular and healthy, if the tumour can be referred to violence in the commencement, which from the exposed situation of the organ is far from uncommon, if more than one lump exists in the same breast, if both breasts are affected; if painful, the character of the pain; if any absorbent glands are altered in the neighbourhood, and how. How many cases of breast-tumour are in the recollection of experienced surgeons which have been dispersed by some one or other of the remedies in ordinary use, local or constitutional; and how many that have resisted all and remained stationary for years, the patient's mind having been tranquillized by the assurance of their innocence. Doubtless on the other hand a fatal result has sometimes administered a silent but painfully intelligible reproof to the over confidence of the surgeon.

The cases in which the cancer *mammæ* is allowed to run its course unirritated by applications, where the easy circumstances and tranquil mind of the patient, joined to a phlegmatic physique, admit of plentiful nourishment and sufficient rest, and where the habits are conducive to strict cleanliness, often occupy a very considerable period of time, and really inflict very moderate suffering. I have known women

manage, with the assistance of their maids, horrible fetid ulcers for years together, looking stout and well, in the enjoyment of good spirits, rest, appetite, and seeming rather to be amused than annoyed by the superintendence of their own cases. They ring the changes upon the old woman's remedies of goose grass and prunes boiled in milk, &c., &c. After lingering long in the scirrhus stage, such cases are again retarded in that of superficial ulceration; then comes a more decided and extensive change in the complete giving way of the inflamed wall of the tumour, and the formation of large masses of slough in the hollows of the ulcer; this again goes on slowly though the pain is occasionally severe; the fetor nauseates, and the profuse ichorous discharge gradually wastes the strength. This slow rate of progress in cases left to themselves is so much in contrast with those which have been submitted to operation, as far as my opportunities have afforded me the means of comparison, that I always deprecate an operation, if the circumstances both of the part and constitution do not offer the fairest prospect of final success. But indeed an operation should never be resorted to in this case, as a *pis aller*, but as a measure resting upon its own merits, independent of the alternative.

The best application to cancerous ulcers for the purpose of preserving them clean, improving the discharge, and lessening the tendency to putrefaction, is Fincham's Solution of Chloride of Lime ʒij. or ʒss.

to 8 or 12 oz. of water. The hollow of the ulcer is to be lightly filled with finely drawn lint soddened in the solution, and covered with an ointment of the oxyd of zinc or bismuth spread on lint or cambric. When the sore is very painful, the watery solution of the extract of hemlock or opium may be occasionally substituted. An ointment consisting of powder of bark and a portion of opium well mixed with hogs' lard, is an excellent cleansing application, and so are the vegetable poultices.

The only case of malignant tumour in the male breast which I have had an opportunity of watching, and ultimately investigating, was briefly the following.

A waggoner, æt. 58, had perceived a lump of the size of a marble in his left breast three years before he became my patient in St. Thomas's Hospital. It was then the size of a pullet's egg, hard, irregular, not freely moveable, and very painful after handling. A cluster of enlarged and indurated glands were seen in the axilla and above the clavicle. He was wasted in flesh, and had a cadaverous complexion, a bad cough, with dyspnœa, and mucopurulent expectoration. Soon after his admission the tumour became adherent to the skin all round the nipple, and of a livid hue, with large varicous veins running over it. The pain was aching, not darting. The absorbents at the edge of the great pectoral muscle were so raised and corded as to confine the

arm to the side. A dark incrustation next appeared on the surface of the breast within an areola of livid spots. During this process the tumour dwindled in size, and at the same time small detached tubercles formed in the neighbourhood. The pulmonary symptoms and hectic increasing, he died about four months after his admission. The post mortem appearances were as follow.

An ulcer was formed in the larynx; the pleuræ were generally adherent; all the lobes of the lungs were studded thickly with hard tubercles of various sizes, from a garden pea to a horse-bean; upon section they presented a white medulla, with a dark deposit in the centre. The pericardium was coated on both sides with a thin pellicle of lymph. The ventricles of the heart were thickened, and the valves and membrane of the heart and aorta opaque, presenting spots of earthy deposit. The enlarged glands were of a gristly texture, and had a lobulated appearance from the condensation of the connecting membrane. The other organs were free from morbid change.

The above, it will be observed, is not the scirrhous tubercle, such as we meet with in the female breast; nor can any analogy of structure be cited to explain the locality of the disease when it appears in the male breast, which is rare, and its situation probably altogether fortuitous. But the isolated medullary tubercle presenting a considerable degree of firmness, and upon section a black or grey deposit

intermixed with the white, is a form in which the characters of the scirrhus and the medullary cancer seem to blend; a connecting link, though strictly belonging to the latter species.

The structure of the female breast, it must be admitted, is strongly predisposed to the formation of the scirrhus tubercle. Occasionally, though not often, its origin is traceable to a blow.

I have seen the growth of a scirrhus suspended during gestation, and the tumour after the woman's delivery resume fresh activity, i. e. break into cancer during suckling; this I have twice seen in young women. One died, immediately after the amputation, of pleuritic inflammation, and the other by a slower process, without submitting to operation.

Certain anomalous morbid changes, as large fungous excrescences and deep cavernous fetid ulcers are now and then the sequelæ of tumours in the female breast, which are, in a loose and slovenly classification, termed cancerous. They are not so; but they are almost as incapable of being conducted to a curative termination as if they were; their progress can scarcely be said to affect the health, being remarkable for its slowness and freedom from pain.

Two remarkable instances have passed under my observation: the one, a single cylindrical tubercle rising perpendicular to the centre of the breast of an

elderly lady, six inches in circumference at the base, and four in height, and perfectly moveable. It presents a surface of healthy granulations, discharging good pus, and its texture is spongy and compressible to the fingers embracing it. The surrounding skin is a little thickened by slight œdema and discoloured. No glandular affection—no pain. The surface is disposed to bleed, and sometimes profusely, like a varicous tumour. This has been the slowly developed result of a reputed scirrhus tumour of many years' standing*.

The other is the case of a widow lady, also of advanced age. A hard livid-coloured tumour, of the size of a small orange, projects from the right breast above the nipple, and the entire left breast presents a dark coloured swelling of great hardness, but perfect mobility, of from six to seven years' growth; and for the last four years, the period since it broke, an extensive, deep, and sinuous ulcer, having everted edges at its mouth, and discharging freely of sanies and pus, which is rendered extremely fetid by the constant coming away of dense masses of slough. Here also there is no pain nor any sensible affection of the health; but a remarkable circumstance connected

* This lady died, since the above was written, of a complaint in the bowels. Before her death the tumour sloughed entirely off, and the sore which it left had nearly healed. I macerated the remnant of the tumour and examined it carefully through a magnifier. It was reticulated and most analogous to a section of dry sponge.

with the case and perhaps influencing it, is an almost habitual menorrhæa, which is sometimes very considerable *.

Another anomalous form is an excoriation of the integument around the nipple, gradually extending over the breast, accompanied by an ichorous exudation. It remains for many years in this state, and resists permanent healing: ultimately it throws up a broad toad-stool fungus, exquisitely irritable, and much disposed to bleed. Such a case was last summer under my observation. It neither affects the glands nor the health.

I cannot determine whether this is malignant or not, neither can I divest my mind of suspicion. In the case to which I have referred, the lady refused her consent to the removal of the breast, and I have received news of her death only a few days since.

2dly. The organs of generation and urine:—

THE TESTICLE.

The testis is subject to partial and general induration from inflammation, with or without increase of bulk. The most frequent cause of inflammation of the testis is the affection sympathetic with that of

* This lady, who resided near Maidenhead in Berkshire, is very recently deceased.

the urethra, absurdly denominated *hernia humoralis*. When with the reduction of its præternatural bulk the body of the testis recovers its natural consistency of texture, and long afterwards in many cases, the epididymis remains more or less enlarged and indurated, especially the extremity called *globus major*; very gradually its original state is restored. In the indurated enlargement which follows blows, pinches, &c. as sometimes in the first stage of acute *hernia humoralis*, the body and epididymis are so confounded as that the interstice betwixt them is not perceptible. In chronic enlargements, which are slow inflammations from injury, from cold after mercury, from long standing stricture, or irritation at the neck of the bladder, and as some suppose, from the absorption of a venereal poison, the shape of the testis is curiously altered; the most frequent change is an oviform elongation with flattened sides. The first and surest sign of absorption is the restoration of the natural cleft between the body and epididymis. When the cord participates in the enlargement and gets a whipcord hardness, the affection is more obstinate of removal. But in a considerable proportion of recent cases the cord is not sensibly affected, and the disease being attended to in time, never becomes so. I have heard it stated on respectable authority that the affection of the cord is present in all cases of inflammation following mechanical violence, by which this origin of the swelled testis is distinguished from the sympathetic swelling termed *hernia humoralis*. My own observation does not

enable me to confirm, but on the contrary prompts me to deny the general accuracy of this position. The pain of the chronically enlarged and indurated testis is obtuse, greatly depending upon the weight of the part, where it is allowed to be in any degree pendulous.

Sometimes the surface of the swelling is nodose and irregular, instead of being smooth and uniform, and the induration is absolutely stony, instead of being simply inelastic. This state has been called the scirrhus of the testis, being supposed from the combination of these characters to resemble the scirrhus of the mamma. But neither hardness nor nodosity are, as formerly shewn, faithful diagnostics of scirrhus, nor is the hypothesis borne out by the progress and sequel of these cases. The majority of such cases undergo a slow absorption when submitted to the influence of mercury, local and constitutional, and where they resist this, either soften slowly, being supported, and the skin kept perspirable by a plaster, or if not, become surrounded by a dropsical accumulation which seems to relieve the part slowly and thus to reduce its bulk. The ordinary mode of treating hydrocele, and obliterating the cavity of the tunica vaginalis, has the best effect upon these chronic enlargements, and may be practised with perfect safety.

But if no effusion takes place, and neither the bulk nor hardness sensibly decline, I have not found these hard and knotted testicles to irritate, inflame, and

render adherent the scrotum, and break up into ulcer and cancerous fungus, as might be expected, if their real character was scirrhus; and, indeed, I confess myself incredulous as to the fact of the scirrhus cancer affecting the testis. The scrotum, as is well known, is frequently the subject of such ulcer, in common with all parts of the cutaneous texture.

There is an equable and moderate enlargement of the testis, with condensation of the body and epididymis, in which the firmness is cartilaginous and the section of which presents smooth white glistly surfaces without a vestige of the glandular structure. Sometimes two or three small cells are seen containing serous fluid. A middle-aged gentleman consulted me for a testicle, moderately enlarged and much hardened, presenting an equable surface. The hardness extended to the cord. I endeavoured to calm his fears respecting the character of the disease, and advised him to employ further constitutional as well as local means for its reduction. He however soon became impatient for its extirpation, from apprehension that it was incipient cancer. It was removed, and corresponded precisely to the appearance last described.

The affection of the testicle, which has formerly been set down as cancerous, is the scrofulous abscess, which has its seat in the discerning pulpy structure of the gland, bursts up the close and loose tunics and scrotum from distension, and throws up a luxuriant rose-bud fungus, which gleets profusely at the aper-

ture. This has been well described and delineated by Sir Astley Cooper, in his late splendid work on the anatomy and diseases of this organ. It is a very common disease, but fortunately very curable in most cases without the use of the knife, and in all without the severe expedient of castration, which formerly, under an impression of its malignancy, was habitually resorted to. It frequently happens that both testicles are thus destroyed, one following at a short interval the course of the other. The disease is met with in young men of truly scrofulous habits, but is not confined to these.

The following is the ordinary scrofulous testicle, which is liable to be mistaken for scirrhus from its unyielding hardness.

July 5th, 1832.—James Sloat, æt. 25, a young man of spare habit, with blue eyes and light complexion. Rather more than six months ago, without any previous injury to the part or any description of venereal affection, the right testicle began to swell and the swelling shortly after was accompanied with severe darting pains, which were not confined to the testicle but extended down the thigh and upward in the direction of the cord. His constitution appears to have sympathised almost immediately with the local affection. The application of leeches and cold lotions to the part constituted the principal treatment previous to his admission into the house. At this time the testicle was about the size of a large swan's

egg, hard but very sensible to the touch, and giving a sensation of an increase of weight equal to that of volume when handled. Its parts were compacted together and its surface was firmly adherent to the integuments, which were tense and exhibited a slightly inflamed appearance. The cord was slightly thickened, the other testicle perfectly healthy. The weight of the tumour and the pain it gives him while in the erect position have confined him to his bed for two months, and his general health has suffered much in consequence. He is now in a state of great emaciation; is subject to night sweats and diarrhoea; has a quick and irritable pulse, and altogether a hectic appearance. He was ordered iodine medicinally and also as a local application, but finding the system injuriously affected by it and diarrhoea increased, it was soon discontinued, and medicine and diet prescribed, chiefly with a view of improving the general health, mercurial ointment at the same time being directed to be rubbed in.

July 30th. The patient's health has rallied, the pulse has improved, the secretions are more healthy, and the hectic flush has disappeared. There being, however, no perceptible change in the bulk of the testicle, it was removed by operation on the 3rd of August.

The tumour, which was the size of a swan's egg with flattened sides, the epididymis and body being inseparably incorporated, was very firm but slightly

elastic, and presented on bisection a dull white and seemingly smooth surface. Under water small cryptæ were apparent, and in some parts cysts and cells of various sizes plugged with straw-coloured or yellow matter. No vestige of healthy structure or colour remained. The tunica albuginea was slightly thickened, and in one spot raised into an hydatid cyst. After three or four days floating in frequently changed water, one-half was incised in a direction oblique to the first section, and exhibited a bolder scale of abscesses in different stages of advancement, some holding solid (caseous), others fluid matter. The other half was subjected to gradual compression in the hand, and yielded readily so large a quantity of pus as reduced it to the ordinary dimension of the organ, without any læsion of its reticular texture. After some days of further maceration, a stream of water directed upon the cut surfaces demonstrated the body and epididymis to be each a complete nest of cells of different dimensions.

This is the indurated testis of scrofula, formerly reputed scirrhus, and removed under that impression. Its ultimate stage is the giving way by slough of the albuginea and ulceration of the superjacent skin, the fungus shooting through and overlapping the orifice. This was set down for the second stage (as in truth it is) of the disease, and denominated cancer, or cancerous fungus, of the testicle, and removed under that impression. The operation in the first case is called for if the constitution sympathizes, which is not always the

case; in the second it is quite unnecessary, as absorption is readily induced by pressure.

There is another case, in which the gristly condensation, giving the sensation of scirrhus hardness, presents on section a brownish mass, having no vestige of organization except being intersected by strong septiform processes, sometimes containing calcareous deposits, which grate against the knife. Anomalies without number might be described, as persons consulting the collections of this metropolis will find, but none bearing analogy to scirrhus as we see it in the breast, and other parts surrounded by cellular texture: the extreme condensation of this substance within the unyielding proper coat of the testis, unaltered in its properties, explains the symptom of induration.

The scrofulous inflammation of the testis also produces the pulpy enlargement which most nearly resembles the medullary fungus. It consists of deposits of white curd-like matter, intermixed with remnants of the brown tubular structure, and much thickened and softened coats; the consistence is what the name implies, and the disease is not painful.

I removed from the person of a medical man in this town such a scrofulous testis, of great bulk and weight, and presenting the flat sided or oval figure, with an homogeneous lardaceous section, a dozen years ago. He has since enjoyed excellent health. A boy's scrofulous

testis of great size was removed by my colleague, Mr. Tyrrell, after some difference of opinion as to the nature of the enlargement : he also did well.

The hæmatocele is a collection of laminated fibrine and grumous blood in the place of the gland, with thickened coats. This disease is not to be confounded with the bloody hydrocele, which is confined to the proper seat of hydrocele, and leaves the testis uninjured. Sometimes the close coat is enormously thickened, and in addition to decomposed grumous blood, contains, in the place of glandular structure, masses of dead lymph and pus in distinct cells, inflammation having recently existed. I saw such a testis freely incised, in consultation with the late Mr. Headington. There is sometimes disorganization of the testis from inflammation, consequent upon violence, as in the following case.

Jan. 1821. Smith, æt. 27, contracted a gonorrhœa two years ago, for which he used injections. It was followed by enlargement of the left testicle, and in this state that organ received a violent blow. It has since remained unreduced. The skin covering the testicle has recently become inflamed and burst under a poultice. The testicle protrudes in a sloughy disorganized state.

Jan. 19th. The part extirpated.

26th. Ligature of the spermatic artery separated.

Feb. 24th. Wound perfectly healed, and the patient discharged well.

The hydatid testis is a subdivision of the space before occupied by glandular structure into membranous compartments, containing a serous or albuminous fluid. There is sometimes great uniformity in the size and figure of the cells, the arrangement resembling a honey-comb throughout the whole interior of the tunic. In other instances their formation is confined to a part, or if pervading the whole, they are of unequal size and arrangement. Similar cysts often form external to the tunica vaginalis, and in the course of the cord.

No organ is more subject to medullary cancer; with this the scrofulous pulpy testis, above described, and the hæmatocele might be confounded by competent and attentive observers, were it not for the strongly marked characters of the malignant fungus. The two forms of the medullary cancer, which I have observed in the testicle are the brain-like (encephaloid) and the blood-like (hæmatoid). I have not seen these appearances combined, except where the testis, under a suspicion of fluid, had been deeply punctured, some time previous to an operation; and it was therefore only accidental. The rapid growth, enormous size, distension and discolouration of the integument; the weight, elasticity, almost amounting to fluctuation, and more or less involvement, of the cord; obtuse aching extending to the loin, the

complexion, temperament, age of the patient, and the disturbance of the general health, are the signs whereby to judge of its nature. Sometimes a collection of fluid in the seat of hydrocele co-exists with the fungus, but not often. Where the vaginal tunic of the cord, distended by the fluid, gives the impression of great thickening in that structure, and there is great lividity of the tumour from venous obstruction, and great uneasiness from volume and weight, the distinction is not always easy; and accordingly different opinions are entertained by different and experienced examiners. It is scarcely necessary to say that where such doubts exist, an incision of the tumour is the only mode of determining its character. But the history elicited by patient enquiry will generally determine the real character of the disease. I have more than once seen a supposed fungus turn out to be a complicated hæmatocele, and know at this time a case of four to five years' standing in which that mistake had been committed, the condition of the part and health of the patient having since remained unaltered.

The malignant fungus of the testicle greatly and rapidly disorders the health. If the part is extirpated and the wound heals, the patient retains his sallow aspect and general unhealthiness and pains, and the disease soon reappears at the groin, in the course of the cord. After death an enormous tumour of the same character is found occupying the iliac fossa, sometimes reaching even to the kidney, the pelvic and lumbar glands being involved in the disease. This is

also met with in other organs of the body. It sometimes happens that another and fatal disorganization takes place in the interval, before the reappearance of the disease externally. I removed the fungoid testis of a man in whom the cord was diseased quite to the ring, by slitting open the inguinal canal and tying the vessels within it, at a part where the spermatic process was unenlarged. The wound healed and he went about, though still complaining and looking sickly. Some months afterwards he called upon me, and whilst sitting in my waiting-room, died suddenly of apoplexy. I have never known an instance of the non-recurrence of the disease after castration.

Nov. 1821. Norris, a tin-plate worker, æt. 39. The left testicle has been enlarging for two years and the pain increasing. It is spheroidal, firm, but somewhat elastic; measures twelve inches in circumference; the cord much thickened, surface of the scrotum discoloured and vessels much enlarged upon it; health moderately affected.

12th. The testicle removed at his request. Appearance on section that of the genuine medullary cancer.

20th. He was taken ill of typhoid fever, and sunk rapidly.

24th. He expired. On examination, the wound had gone on well towards healing, the cord was found

diseased within the abdomen, beyond the spermatic canal; and the same morbid structure surrounded the ureter of the same side throughout the greater part of its course.

The scrofulous temperament, and the age from thirty to sixty, are in my experience most prone to it. The medullary is commonly a more shapely and uniform enlargement of the part, of less bulk and slower progress than the hæmatoid species. The former is most liable to be confounded with the pulpy or lardaceous testis of scrofula, the latter with the complicated hydro-hæmatocele.

THE PENIS.

In this organ the result of our experience is reversed; I have never seen it affected by the medullary species of cancer; it is very subject to the scirrhus. The origin is either in the glans or prepuce, though, in whichever it arises, the other speedily becomes involved. It is remarkable, however, how seldom the primitive ulcer in the glans is clearly ascertained, owing to the circumstance of its being in a great proportion of cases concealed by a phymosis, natural or morbid. Mr. Hey pointed out the liability of persons having a natural phymosis to this disease, and mine confirms his observation. A very sufficient reason, if there were no other, for never permitting the state of phymosis, congenital or morbid, to continue, if sufficient to interfere with the complete

denudation and necessary cleanliness of the cervix glandis. For the confinement of the natural secretion, however unimportant to persons of slovenly habits, is a circumstance easily convertible at any time into a source of mischief, but especially in age. I have several times known elderly men come into the foul ward for what was supposed to be a gonorrhœa with phymosis, in whom the peculiar induration of the glans, felt through the integument, led to a discovery of the cancer penis, for which immediate amputation was required.

The prepuce is subject to a warty cauliflower fungus, within which the glans is found, upon exposure, shrunk and entire; at a more advanced stage it becomes diseased, and incorporated with the fungus. Again, I have seen the ulceration confined to the glans, and the inflamed prepuce thrown back, and discoloured by excessive distention; and although I never saw a Jew the subject of cancer penis, I have operated on a man who had been cut for phymosis ten years before, in whom a pimple on the side of the frænum ulcered, and assumed the form of cauliflower fungus completely environing the glans, while the latter remained sound. The pain of this disease, as ulceration advances, is very acute at intervals, and always present in a distressing degree. There is commonly much tumefaction of the organ, and great hardness extends along the corpora cavernosa and septum penis, and advances, not very gradually, to the os pubis. The glands in the groin are as often

unaffected as otherwise. Swelling, hardness, preternatural redness, pimpling, excoriation, ulceration, deep, jagged, and sloughy, condensation of all the surrounding texture, so that the callosity extends far beyond the ulcer, with shooting and cutting pains through the organ, are the signs of incipient cancer penis. The production of fungus is accidental, like that of warty excrescences in general. It depends on mechanical confinement and a narrow aperture, through and around which the fungus shoots. Whether the glans or prepuce is first affected, the disease in its progress incorporates them, so as to blend them indistinguishably and destroy both. The discharge is copious and very fetid. If the penis be amputated at some distance beyond the hardened part, and before the disease has long existed, the patient may escape a return of it; but this is a rare instance of good fortune. Slight symptomatic enlargement of the glands in the groin should not be accounted a bar to the operation; on the other hand the absence of all glandular affection is no security against its return and fatal termination in three months. I hold it to be quite useless to remove the prepuce alone in any case of malignant sore or excrescence, however the glans may be free from ulceration.

The warts of gonorrhœa cannot, while they retain their peculiar character, be mistaken for the cauliflower cancerous fungus, I should think, in any case; but there is an intractable fungus of the prepuce as

well as ulcer of the glans, strictly speaking, neither venereal nor cancerous, occurring in younger men, as from the age of twenty to thirty, for which, owing to the extent of the disease and the utter irrecoverableness of the parts, amputation is advised and commonly resorted to; the complaint, however, is so connected with or depending upon organic visceral disease, indicated by advanced hectic, that the life of the patient is scarcely prolonged by the operation, perhaps abridged. I have amputated the penis once for cauliflower preputial fungus, and once for an inveterate sloughing ulcer, which began in wart on the upper part of the glans, for men under twenty-seven years of age, and in both death speedily followed, and the lungs were found loaded with tubercles, the hectic having been erroneously supposed to depend on the external disease. One died suddenly of serous effusion upon the brain, the other after a diarrhoea of three days' continuance. I believe this disease has its origin indirectly in gonorrhœal warts, concealed and encouraged by unrelieved phimosis, and that the unmanageable character is depending on established hectic. The following case exemplifies its commencement.

Nov. 1st, 1826. Thomas Moynihan, æt. 38, has a phimosis which ensued upon a gonorrhœa five years ago. Within the last three months a thin pus has exuded from the orifice of the prepuce, and he complains of slight lancinating pains at intervals. The glans penis may be felt to be enlarged and harder

than natural, and is tender on pressure. In each groin are two small indurated glands. For some months past he has been troubled with short breathing and cough, and loss of appetite and of flesh. He is not accustomed to drink. His pulse is commonly one hundred and twenty, small and sharp—bowels costive—skin harsh and dry.

Dec. 1st. The prepuce was freely divided: two anterior thirds of the glans were covered with warty excrescences, having a broad base, the posterior third was much indurated. He was advised to have the part removed, but finding his health declining, he refused to submit and left the hospital.

Wherever the disease begins in irritable pimple, whether of the glans or prepuce, and this breaks into hard based and spreading ulcer, with a disposition to fungate, the case must be viewed with great suspicion, whether the glands in the groin be affected or not; especially if the patient be turned fifty years. If, on the contrary, the warty excrescence of the prepuce or glans be its original character, though it may be necessary and judicious to sacrifice the latter, there is reason to hope that the operation may be permanently effectual, as I have often found it to the extent of my after-acquaintance with the case.

The disease, after amputation of the penis, sometimes reappears upon the stump, or forms cancerous buboes in the groin. The first happened in the case

of an elderly gentleman, for whom I amputated the organ quite beyond the morbid structure, but which in less than three months re-appeared and destroyed him, the external glands being nowhere affected. The second in a publican, æt. 64, in whom the disease commenced in a pimple at the corona glandis, the size of a pin's head ; it enlarged in eighteen months to the size of a silver penny ; it then broke and excoriated the whole surface of the glans.

March, 1826. The following was the appearance : The depth of the ulceration is varying at different parts of the surface, a part is covered with very minute conical granulations of a vivid red hue, much smaller and harder than healthy granulations ; with these are interspersed here and there patches of a yellowish white cuticle, hard and firm, and altogether equal to half the area of the sore. Between the ulcerated glans and prepuce is a fissure, a quarter of an inch in depth, and lined by the same kind of pellicle as that on the glans. The glans is enlarged and feels hard ; the prepuce swollen and retracted. There are two superficial detached ulcers on the prepuce, and the ulceration of the glans runs a short distance over it at their junction. The discharge is sanious, not very abundant, but very fetid. He has a good deal of shooting pain. On the scrotum are two superficial spots of ulceration, produced apparently by casual contact. The glands in the groin are not in the least degree affected. The scrotal sores healed readily.

18th. The penis was amputated full two inches above the glans.

April 15th. The man was dismissed in all respects well. In the following August, two or three glands in the right groin swelled and became painful, and about the end of October one ulcerated, for which he was re-admitted.

Nov. 18th. It is now a deeply excavated ulcer, the upper edge sharp and undermined, the lower reflected, and overlapping the sound skin. It discharges a thin fetid sanies, and he has slight shoots of pain. His complexion, flesh, and health are much altered.

January, 1827. The ulceration has much extended, the other inflamed glands having opened and the openings coalesced.

February. The chasm is large, the edges having been destroyed; the surface clean, the discharge more offensive. The left groin is now swelled, the skin discoloured, and a small aperture emits a dirty fetid pus. It is needless to describe the remaining changes.

March 14th. He died extremely emaciated, having been delirious nearly a month previous to his dissolution. The post mortem examination showed several lumbar glands in a similar state of enlarge-

ment and disease, containing an ill-conditioned, offensive pus. The liver was also much enlarged and very thickly studded with small hard white tubercles.

I never saw an instance in which the penis was affected with the medullary or hæmatoid cancer, and I doubt if it is subject to this fungus. Sometimes the cancer is translated, or remains stationary at least in the penis, and becomes active in the absorbent glands, and thus destroys the sufferer; and it is remarkable, that though the scirrhus cancer has been the original affection, as in the penis, the fatal issue of the case has developed only the medullary, as in the lumbal glands.

April, 1825.—Macguire, æt. 52, six months ago had a hard pimple, afterwards a sore on the frænum præputii. On this a partial phymosis ensued, with a whitish discharge from beneath the prepuce. Then a swelling arose in the right groin, and soon afterwards in the left. These swellings inflamed and burst, and in December, 1824, being unable to work, he applied at Guy's Hospital; being in part relieved, he returned to his work of unloading ships at Gravesend. The following month he was admitted into a foul ward at St. Thomas's, with what was supposed and stated to be gonorrhœa, with enlarged and indurated buboes in each groin. Upon more strict examination, the man positively denying the venereal origin of the disease, and his health being much deranged, the prepuce was found to be permanently

adhering to the glans, and from the small opening at the frænum issued an ichorous and fetid discharge. The glans and corpora cavernosa were indurated through half their length, and cords of indurated absorbents could be traced along the sides of the penis to the pubes and glands of the groin. The tumour in the right groin softened, pointed, and was punctured ; blood only issued. From this opening ulceration extended in all directions, until a deep and extensive cavity was formed, having a peculiar, florid, velvet-like granulation. In the left the ulceration commenced by pinhole openings, which gradually coalesced, till a hollow sore, similar exactly to that of the opposite side, was formed. The malignant character was strongly expressed in both sores, and a sallow countenance and decaying health confirmed the opinion.

In February, 1826, he died after frequently recurring hæmorrhage. The pelvic and lumbar glands were found upon inspection to be amassed and enlarged into a considerable tumour, which upon section proved to be made up of sacs filled with a cream-like fluid, and bearing the character of the medullary, not the scirrhus carcinoma.

SCROTUM.

I may here shortly notice the cancer scroti, or chimney-sweeper's cancer, which is a peculiar form of malignant ulceration, more truly local than any in its origin. But although it is impossible to discon-

nect the origin of this sore and the occupation of the patient, how seldom have we seen the boys so much employed in this trade, the subjects of it; their wounds and excoriations shew no tendency averse to healing. The soot irritates in the adult to the formation of a hard pimple, which passes slowly through the stages of suppuration and scabbing to ulceration. The edge is hard and gibbous and everted, the surface of an ochre-red hue. The disease resembles the lupus of the cheek and eye-lids in destroying the skin and cellular texture, leaving the testicles and ligamentous covering of the crura penis, as that does the sclerotic, bare and wasted, but otherwise uninjured. This sore has no tendency to slough or penetrate deeply by ulceration. The lymphatic glands are rarely and seldom specifically affected. The disease returns after extensive removal. I have operated three times on the same patient, applying the actual cautery on one occasion after excision. The patient dies hectic, tabid, and commonly exhibits pulmonary tubercles, or the small white tubercle of scrofula on the serous membrane, either of the chest or abdomen. I am very doubtful of its identity with scirrhus cancer. The natural secretion confined by the soot, which obstructs the sebaceous follicles and exhalant orifices, becomes an irritant, and gives occasion to the inflammation: but the age and perhaps the habits predispose to the malignant character, which renders it incurable and ultimately fatal. The disease is of very variable activity, sometimes occupying years in its progress.

Sept. 1821. Woolley, æt. 43, chimney-sweeper. About three years ago a pimple appeared on the scrotum, which he picked; it became excoriated, then ulcerated. His health was not affected. He underwent an operation for its removal in the Westminster Hospital; the disease reappeared, and it is now an ulcer equal in size to a palm's breadth.

Oct. 11th. I excised freely the diseased edges of the wound, and then applied the actual cautery to the entire surface, leaving the wound to granulate. Portions of the crura penis were unavoidably denuded, and the tunica vaginalis was opened on both sides.

Dec. 12th. The healing went on slowly, but was completed in two months, so that he was discharged cured.

In the ensuing summer the man returned with a relapse of the disease in the site of the cicatrix, and died exhausted after some months of severe suffering. His emaciation was extreme. It was remarkable that the testicles, though exposed and shrunk, were not affected by ulceration; on inspection, the entire peritoneal surface was found studded with the small white tubercle of scrofula.

THE PROSTATE GLAND.

I found the prostate occupied by a tubercle possessing all the characters of scirrhus, upon section, in

an old nobleman long subject to retention. I have also met with cases, in which the stony hardness, and increased size of the gland, the bloody seminal discharge, and the peculiar pains of the thighs and elsewhere of women affected by scirrhus uterus, confirmed the opinion. Such a case I saw lately, with Mr. Brodie, under the care of Dr. Smith of Maidstone.

CLITORIS, NYMPHÆ, MEATUS URINÆ.

I have known the clitoris the subject of scirrhus ulceration, and freely amputated. The orifice of the meatus urinarius is in females of a certain age liable to scirrhus inflammation. The excrescential growths of these parts, as detached caruncles, vascular, and exceedingly painful; the indurated pendulous prolongations, sometimes of great bulk, and hard warty tubercles of the clitoris and nymphæ, involving the labia pudendi in their growth, have nothing malignant in them. The last mentioned are generally the result of venereal irritation. The inflammation which attends upon the small hard tubercles and caruncles of these parts, or the morbid irritability they set up, is sometimes followed by a permanent constriction of the vagina, or a spasmodic action attended with so much pain as to oppose a complete barrier to sexual intercourse.

The perineum and inguina are subject to cancerous growths. The removal of a large fungus from the

perineum was followed soon after by one in the groin of an elderly lady, of which the specimens are preserved in Mr. Hunter's collection.

May 7th, 1818. Mary Steer, an aged woman, and till of late healthy, though long suffering from piles, perceived, four months ago, a hard knot or kernel, as she terms it, in her right groin; it inflamed, burst, and gave origin to a warty excrescence, having all the complexion, discharge, and fœtor of a cancerous fungus. It gradually extended along the absorbents, from the groin to the anus, which it nearly encircled. The neighbouring skin was inflamed, and some glands in the opposite groin hardened and tender on pressure. No tumour could be traced within the abdomen. She has frequent burning and shooting pains, and complains of broken rest and loss of appetite.

July 24th. She died, having been rapidly sunk by a violent diarrhœa.

I do not remember to have seen the external organs of the female affected by the medullary or hæmatoid cancer.

THE UTERUS.

No organ is more frequently the subject of the scirrhus cancer than the uterus. When it occurs in young women, which it sometimes does, I believe it

is often, partially at least, referable in its commencement to violence, inflicted by disproportionate and intemperate coition, other circumstances combining to impair the health and weaken the powers of a system not naturally robust. I watched a case through its career, in which there was strong reason for entertaining this opinion. The disease begins in the lip of the os tinæ, or the angle of reflection of the vagina on the cervix, and extends to the body. The same part is subject to chronic inflammation and to simple scrofulous and venereal ulceration. I knew a case in which a large ulcer, considered cancerous, healed, and the woman recovered speedily under a course of mercury, the supposed cancer being a venereal ulcer. The symptoms of cancer uteri are well marked, and well known. The age, the character and seat of the pain, immediate and remote, and of the discharge, especially its peculiar fœtor and frequent admixture with blood; the early sympathy of the constitution, shewn in the pallor, the loss of flesh, rest, &c., cannot be overlooked.

The fleshy tumour of the uterus, sometimes of enormous size, is in no sense a malignant, though an incurable malady. It remains many years stationary, and considering its size and hardness, it is extraordinary with how little inconvenience from pressure, or displacement, to other organs of the abdomen. It is very sparingly organised, though it grows in the walls of the uterus. I have seen it oftener in single than married women; sometimes complicated with

ascites, sometimes with ovarian dropsy, and more frequently single, and uncombined with any other form of disease.

The ovaries form similar solid tumours as well as cysts, and they are generally more or less combined. One or more solid tumours are commonly felt in addition to the collapsed walls of the cyst or cysts, when the ovarian fluid is discharged, and the abdomen consequently flaccid.

Polypi of the ordinary kind are easily distinguished and removed in most cases. They are firm, fleshy growths from the lining membrane and body; and the lip of the os tincae embraces their necks. One species, first described by French authors, growing from the surface and not from a point, is said to be malignant; it is pulpy in texture and easily broken down, and if removed, speedily regenerated. I believe it is essentially similar in character to the malignant fungus, before described, of the nares and antrum.

A warty tumour has been called the cauliflower excrescence, and a peculiar ill conditioned phagedenic sore, the sloughing ulcer of the uterus. The progress of cancer uteri is to affect the pelvic glands and contiguous textures. All the surrounding parts become compressed during the enlargement, then adherent; and if the patient survives long enough for the ulcerative process to extend to

these parts, the diseased mass is with difficulty made out. The irritability of the stomach, which rejects all nourishment, is one of the most distressing and difficult symptoms to assuage. The combination of scirrhus pylorus with the cancer uteri is by no means unfrequent. It is rare for a cancer to begin in the sides or fundus uteri, but it sometimes happens. In the cancer uteri the disease begins in thickening with rigidity and ulceration of the reflected vaginal membrane, which extends to the fleshy substance of the organ. In the cancer of the pylorus and rectum, of which we shall speak presently, the disease begins in a deposit between the coats of the bowel, and the mucous membrane is secondarily affected.

THE OVARIES.

I lately examined a specimen of this disease as it appears in the ovaria. It had been taken from the body of a female of 35 years and of decidedly scrofulous habit, who died after the birth of her seventh child. The displacement of the uterus by the rapid enlargement of the right ovary within the pelvis, and of the left, perhaps consecutively, in the abdomen, was such as to present alarming impediments to delivery when the period approached, as the os tincæ could not be felt. Fortunately the escape of the liquor amnii righted the malposition so far as to allow of the delivery of a dead child. The abdominal tumour was much the larger of the two, owing to its free space for growth. The ascites which accompanied

the disease symptomatically, was relieved by operation four days before the death of the lady, which took place ten days after delivery. Innumerable small tumours, like clusters of grapes, were attached to the larger masses; the section of both the small and large tumours everywhere presented the hæmatoid fungus character. The pylorus was constricted and surrounded by a genuine scirrhus tumour, and the pancreas was enlarged and indurated. It is remarkable that this lady's mother died of the ordinary form of cancer uteri during the formation of this disease, and that she had been employed in nursing her mother, when the first symptoms occurred *.

KIDNEY AND URINARY BLADDER.

The surface and cortical substance of the kidney is occasionally affected with medullary cancer. I never saw it scirrhus, but a scirrhous-cancerous fungus of the ureter I have twice seen, filling and covering its aperture into the bladder. There is a malignant medullary fungus of the mucous coat of the bladder, resembling that of the nares and uterus, breaking and bleeding, and reproduced as quickly as it is displaced. It is of very extensive attachment, and gradually reduces the cavity to a very small dimension. Portions of fungus and coagula of blood

* An interesting narrative of this case is given at page 226 of this volume by Mr. Hewlett of Harrow, the lady's medical attendant; whose intelligence, assiduity, and benevolent feeling were equally remarkable under very trying circumstances.

become plugged in the urethra, and form firm pellets, so as to produce retention. It is a very painful disease, keeps the patient in constant anxiety to void urine, which is more or less tinged with blood, and frequently he passes blood alone. He dies hectic and wasted.

I never saw scirrho-cancerous ulceration of the bladder; scrofulous often, particularly in children. When the bladder adheres extensively to the rectum in the cancer of the latter, and when they communicate by a fistulous aperture, so that air passes by the urethra as well as fæculent urine, I have not seen the coats of the bladder presenting the appearance of scirrhou cancer. The vagina and rectum in the female, are, on the contrary, indistinguishably affected by the scirrhou ulcer and fungus. The prostate, as before noticed, is the subject of scirrhou enlargement and ulceration, but the disease is proper to the gland. I am not aware that it is ever affected by the medullary tumour.

3dly. The viscera of the chest and abdomen :—

THE PLEURA.

The pleura, both costal and reflected portions, gives origin to the medullary as well as the scrofulous tubercle. It is firm, and on section commonly exhibits an ash-coloured nucleus. The tubercles are in innumerable clusters and varying in size from a

pea to a small orange. In these cases the lungs are compressed, their cells more or less obliterated, and the dropsical effusion is considerable. In such a case I have drawn off many ounces of serum by paracentesis, to relieve the urgency of the symptoms. The rapidity of the formation of these diseases is the most extraordinary circumstance connected with their history. I have known a case in which, six weeks prior to the actual inspection of the disease, the patient had been engaged in strong athletic exercise, and had all the enjoyment as well as appearance of perfect health.

The appearance of this tubercle after carcinoma mammæ, and other scirrhus-cancerous affections, as well as subsequent to medullary tubercle of the external organs and surface of the body, which I have seen in several instances, proves beyond controversy the natural relation existing between the scirrhus and medullary cancer, and that they are the offspring of a common parent.

THE HEART.

I found upon the anterior apex of the left ventricle of the heart of a gentleman, who died suddenly with symptoms of angina pectoris, and whose body I examined with Mr. Parrott of Clapham, a fungoid growth, elevated, and of the diameter of a shilling. It had the true pulpy character ; there was no ulceration, nor any corresponding appearance on the loose

pericardium, or elsewhere. The internal membrane was unchanged, except some earthy deposits about the aortic valves.

THE ALIMENTARY CANAL.

The alimentary canal is subject to scirrhus, especially the lower orifice of the stomach, colon, and rectum. It is also the subject of medullary cancer, chiefly the œsophagus, upper orifice of the stomach, and about the termination of the small in the large bowel. The local origin of these affections is different, whence may be explained the different liability of parts of the same continuous canal. The matter of scirrhus is deposited in the cellular membrane, between the peritoneal and mucous coats, which forms the "couche" of its muscular fibres and blood-vessels. This, as it increases, encroaches upon, constricts, and renders tortuous the canal. Then the mucous coat partakes of the inflammation, its villous texture becomes indurated and rugged in some parts, ulcerated in others. This is the character of the scirrhus pylorus, sigmoid colon, and rectum. On section the scirrhus deposit appears of a dingy white, disposed in transverse radii perpendicular to the axis of the bowel.

Scirrhus fungi also form within the large bowel and destroy by obstruction, like strangulated hernia. They appear to belong exclusively to the cylinder of the bowel affected, no adhesive inflammation being excited in the surrounding peritoneum, so that they

may be moved in the abdomen, more or less, according to their situation. I examined such a case, some years ago, with Dr. Babington and Dr. Williams of Guildford Street, of which the following are the particulars.

Aug. 16th, 1821. Inspection of Mr. D.'s case twenty-four hours after death. The extremity of the ileum, where it enters the colon, was drawn into a large and solid mass, formed by the cæcum and caput coli. There was some discolouration of the surrounding peritoneum, and serous effusion into its subjacent cellular membrane, but no adhesions either to the other bowels, or except at its base, to the lining membrane, so that the tumour could be freely moved towards the umbilical and epigastric regions. After removing and laying open the caput coli, a conoidal, livid coloured tumour, hard, nodulated, and at one part deeply fissured, equal in size to a man's double fist, was found completely filling the cæcum and colon, covering the valve at its base, and adhering firmly to it, and to the mucous surface of the bowel around it. I also saw a gentleman, with Dr. Hue and Mr. Brodie, whose case, in external circumstances, as nearly as possible resembled this, but in which no examination was obtained. The tumour was situated, so far as we could judge, in the left extremity of the transverse colon.

A tumour of this description sometimes forms within the rectum, but this is rare.

The medullary tumour is situated exterior to the alimentary tube, the walls being free of the disease, except as affected by progressive ulceration, and the canal becomes fistulous, as when enveloped in a common abscess. The subjoined is an abridged note of what was observed by an anatomist of much celebrity on inspecting the body of a gentleman *æt.* 50 years, of strumous habit, who died with symptoms of organic disease of the stomach after a short illness.

Two distinct abscesses were found in the canal, one of the *œsophagus*, discharging into the posterior mediastinum by ulcerated openings in that tube; the second, comprised between the cardiac side of the small curvature of the stomach, and the concave surface of the small lobe of the liver, which parts were adhering. This abscess contained two ounces of matter. In connection with each of these, but perfectly distinct from each other, were two fungoid tumours, one extending to about an inch from the cardiac orifice, where the *œsophagus* was ulcerated, and another involving the posterior half of the cardiac orifice, and extending several inches over the stomach. The diseased masses, though of the same texture, were not in the slightest degree connected. The right *par vagum* was much enlarged, and its branches so involved in the disease as to be traced with difficulty. The left *par vagum* was ulcerated through, after having given off the posterior pulmonary plexus. Serum and lymph in flakes were observed within the pericardium, and some fluid in the pleural sacs.

The cases published by Dr. Seymour in the 14th volume of the Medico-Chirurgical Transactions, of which I have seen several instances, I have been accustomed to consider scirrhus, not medullary tumour of the pylorus : in fact, the same disease as the scirrhus rectum.

Omental and mesenteric tumours are common, but not in my observation malignant.

THE RECTUM.

The scirrho-contracted rectum is one of the most distressing of human maladies. The change upon the mucous surface is secondary, the deposition in the wall of the gut, encroaching upon its calibre, renders it irregular, and more and more constricted. There is great soreness on introduction of the finger or a bougie, and a discharge of blood or purulent sanies follows. The patient suffers exceedingly from the passage of excrementitious matter, unless in a state of fluidity, and always from the action of the bowels. The involuntary escape of fæcal fluid and excoriation of the orifice sometimes occasion a fungous growth, environing the ring of the anus. I do not recognize the hard, isolated tubercles of the mucous surface, described by writers as a commencement of the disease ; great puckering and ridge-like elevations are met with, and the finger is resisted and tightly constricted by the bowel, when introduced. The use of bougies is not only unavailing, but in the highest degree dan-

gerous. I have more than once seen a perseverance in the use of a bougie almost suddenly fatal, in one instance passing into the urinary bladder, and in another into the abdominal cavity. A melancholy example of this description occurred recently, in which the colon was penetrated by the bougie, and no stricture existed. A tallow candle introduced without any force, is the only admissible bougie in these cases. There are many symptoms which distinguish scirrhus from simple stricture, and other diseases of the rectum, as the peculiar pain of the thighs and groins, the fetid, bloody, and purulent discharge, the affection of the lymphatic glands, the age and complexion of the patient, &c.

The ring-like stricture or corded contraction of the bowel, which will break as the finger passes through it, central and equally firm on all sides, without any other change than a rigid state of the mucous surface, with a broad pouch, and perhaps a second stricture above it, is the result of slow, adhesive inflammation: a very troublesome, but a very palliable disease, and affecting the comfort rather than the life of the patient; but giving rise, if neglected, to the watering-pot fistula, or sinuses opening in all directions above the stricture. If higher in the bowel, the ulceration which ensues eventually opens into the abdomen, when it of necessity proves fatal, as I have several times seen.

Some years ago I was desired to visit a gentleman

with the late Dr. Pett, who had been long suffering from obstinate costiveness, and had now been, for many hours, absolutely obstructed. He was incessantly vomiting, the abdomen elevated and tense as that of a woman far advanced in pregnancy. After many attempts I succeeded in passing a strong urethral bougie, breaking every inch of the way through continuous adhesions of the sides of the rectum along its whole course, by steady and firm pressure. Having obtained this advantage, I enlarged the size, and at length diluted it sufficiently by candles to obtain an evacuation of nearly a pailful of fæculent matters and fluid. The relief may be conceived which the use of large unirritating clysters and the temperate employment of the bougie afforded this gentleman. Some months afterwards my friend Dr. Laird was called to him at Brighton, dying under symptoms of ileus, and as the bowel had been kept free as far as it was within surgical reach, secondary strictures were naturally suspected, which proved, on examination, to be the case. There was much disease in parts of the mucous surface of the canal, and above a higher stricture, ulcerated apertures had permitted the escape of the matters into the abdomen.

There is an acute adhesive stricture of the small bowel following an enteritis, which I have seen fatal in a few hours, from sudden effusion, in two well marked cases in young people. The passage is reduced to the diameter of a straw, and symptoms of

acute hernia or volvulus are followed by those of effusion, viz. excessive uniform tension and racking pain, which admits of no relief.

Stricture sometimes occurs from an excessive morbid growth of fat exterior to the rectum, and terminates fatally by ulcerated apertures into the belly; of this I preserve a beautiful specimen. Also from the pressure of a collection of blood poured out by the hæmorrhoidal vessels, a species of false aneurism exterior to the bowel; from an enlarged and indurated prostate, and from a diseased and adhering uterus. Spasmodic strictures are very common, particularly in women, and often mistaken; their fæces, when solid, having the narrow ribanded and sharp-edged figure; they are curable by the temperate use of the bougie and cold water clysters. The metallic cylinder, temperately used, is the best bougie, and indeed the only useful instrument in all strictures complicated with spasm, as is illustrated by the old fable of "The viper and the file". Such persons however being, from experience, aware of the necessity of loose motions, and much in the use of injections, suffer but little inconvenience. When the case is a rigid permanent stricture, it is a source of real distress.

There is a very firm cartilaginous stricture of the rectum, which is in no respect malignant, and yet admits of no permanent relief but division with the knife, and dilatation afterwards, persevered in steadily and for a

considerable time. I have seen this in young as well as elderly people, both in the sphincter and several inches beyond it, following inflammation of the coats of the bowel at a considerable interval of time, and aggravated by the habitual use of drastic purgatives to relieve costiveness.

Warm hip-baths, and opiate suppositories and injections, and cooling ointments, are the only local relief the cancerous rectum admits of. I know of no fungoid or medullary malignant tumour of the rectum; the nodulated scirrhus tubercle I have met with, resembling that above described as forming in the colon.

LIVER. SPLEEN. PANCREAS.

The scirrhus and principal varieties of the medullary cancer of the liver have been ably described and delineated by Dr. Farre, in his "Researches into the Morbid Anatomy of the Liver," under the titles "Tubera circumscripta et diffusa." No organ of the body is more liable to these diseases: I refer to Dr. Farre's as the best authority on the subject. The finest specimen of scirrhus tubercle of the liver (tuber circumscriptum of Dr. Farre,) I have ever seen, was taken from the body of a lady for whom the removal of a large scirrhus mamma had been most satisfactorily performed a year before by an eminent surgeon of London, with whom I had seen her in consultation. The spleen not unfrequently undergoes a simple pa-

renchymatous enlargement like the liver, but it is seldom sensibly indurated. I never saw it affected with scirrhus cancer, often with scrofulous tubercle, and occasionally the medullary tubercle. A case is contributed by Mr. Monteath, of Glasgow, to Mr. Wardrop's work on the *Fungus Hæmatodes* *, in which a tumour of this species extended from the groins along the lumbar vertebræ and communicated with the pancreas and spleen. This latter organ "was very large, weighing two pounds and a half, and was almost totally converted into the same medullary looking matter with the tumour." "The inguinal, iliac, and lumbar glands were all involved in the tumour." Scirrhus pancreas is often mentioned, though with what propriety is doubtful, although the pancreas is subject to induration and enlargement. I have seen it involved in disease of the stomach and duodenum, but never the seat of cancer of either species.

4thly. Superficial regions:—

TRUNK AND EXTREMITIES.

Having now presented a sketch of the ordinary forms of malignant disease affecting the mamma, generative organs, and viscera; I proceed to consider those of the skin, cellular and aponeurotic membranes, and lymphatic glands. I shall first speak of the scirrhus cancer.

* Case 26.

This disease shows itself in all parts of the surface of the trunk and extremities, but in some more frequently than others. The textures in which it commences are essentially glandular, whether follicular as in the skin, or conglobate as in the lymphatic glandular system. The lymphatic glands, however, are more frequently affected secondarily, or by irritation propagated along the absorbent vessels, directing a remote morbid action, or conveying a morbid secretion. The fibrous and aponeurotic textures are also secondarily affected, as after the destruction of the entire integument, and thus become the beds of cancerous ulcers. This applies probably to the periosteum and membrane of the cancelli of bone, as well as to the fascia of muscle and tendon.

The regions of the neck, axilla, and groin are the most frequent seats of scirrhus cancer on the trunk, being especially the regions of glands. A very large cancerous ulcer occupying one side of the neck in the person of a farmer's wife in Sussex, has been some time under my observation. It is kept clean and inoffensive by the chlorate of lime wash, the health well supported by diet, and the irritation moderated by free doses of the extract of hemlock. This is an example of primary affection of the cervical glands.

The scirrhus affection of the axilla is but too frequently seen in the termination of the scirrhus mamma, and sometimes it is primary, but this is rare. The groin is affected subsequently to the generative

organs or to the lower extremity, in most instances ; but here it is also sometimes a primary disease, as appears in the following case, drawn up at my request by my friend Mr. Estlin, surgeon, of Bristol.

Scirrhus Cancer of the Groin.

“ The Rev. Dr. C. æt. 65, of a delicate constitution, thin and pale. He consulted me first in the beginning of the year 1829, and requested me to examine his groin, where he said there was a rupture, and for which he wore a truss. I could not discover any hernial protrusion, but found a gland enlarged and hard, above Poupart’s ligament. I concluded there must have been a rupture at one time, as he had been seen by a surgeon of eminence in London and recommended to wear a truss. I advised the discontinuance of the truss, considering the pressure injurious. He complained of no pain in the swelling. He continued to call upon me at intervals until the 9th of June ; the swelling became a little larger, but not painful ; I applied mercurial plasters. He went to London during the spring and consulted Mr. Travers. I advised his going to the sea, and he went to Ilfracombe soon after his last visit to me on the 9th of June. He called on me again on the 24th of July. The tumour had then increased to a large size, extending in all directions, was very hard and knotty, inflamed on the surface, not very painful, but it obviously impeded his walking. I felt satisfied that the disease was of a malignant nature, one which would destroy him, and this was the first time I had even a

suspicion of the kind ; before this change had taken place, I thought it not unlikely that the diseased gland would slowly suppurate. Dr. H. Fox, who occasionally saw him before his visit to Ilfracombe, was also unsuspicious of any thing serious in the tumour. On the following day I visited him with Dr. Fox ; we ordered cooling lotions, as there was much heat in the tumour. I continued to attend him from this time to the 17th of December, 1829, when he died. The tumour increased ; became excoriated, discharged much ichorous fluid, but never ulcerated, excepting this superficial ulceration ; portions of the excoriated surface occasionally cicatrized. Two or three times there was hemorrhage from veins, not on the excoriated part, but upon the skin that was not abraded ; the opposite side became affected with indurated glands ; on the scrotum, penis, and on the thighs and abdomen adjoining the original tumour, were numerous tubercles which superficially ulcerated. Through the whole of the complaint he suffered no pain and did not take to his bed until two days before his death. The disease destroyed him by its effects on his constitution ; he became extremely emaciated, had always a rapid pulse, and was never free from fever. His mind was clear to the last, and he was constantly employed in reading and writing. All the medicines and applications usual in such cases were employed without effect.

(Signed)

“ JOHN BISHOP ESTLIN.”

When this gentleman visited me in the spring of 1829, I recognized the true character of the swelling

and drew the most unfavourable conclusion, though I did not suffer it to transpire, as he fortunately betrayed no anxiety. He also showed me a hard oblong tumour, of which Mr. Estlin makes no mention, which had appeared about the same time on the edge of the right pectoral muscle. This circumstance, and the strong resemblance of the inguinal swelling in shape and consistence to similar cases in aged subjects, fresh in my remembrance, probably decided my opinion.

Scirrhus cancer begins on the hand and foot ; sometimes without any obvious excitement, sometimes after violence, either concussion or læsion.

Scirrhus Cancer of the Hand.

November, 1827. — Anne Adams, a spare old woman, nine years ago had a wart-like tumour, as big as a boy's marble, on the outer side of the fore finger of the right hand. It grew to the size of a walnut and then ulcerated, and a painful sore extended along the side to the base of the finger. In this state the finger was amputated by a surgeon in the country at the metacarpal joint. The wound did not heal but ulcerated afresh, and the sore crept over the back of the hand to the wrist and between the fingers to the palm of the hand. The appearance which the hand now presents is curious, being flexed to the utmost, so that the tips of the fingers touch the wrist. The entire dorsum is in a state of ulceration,

presenting broad fungous granulations which emit a copious acrid discharge. The integument of the arm is flabby, except the line of absorbents, which as well as the axillary glands are enlarged and indurated. The gland above the elbow-joint in the left arm is a hard tumour, resembling the original swelling on the finger. Her person is wasted, but her health moderately good. She complains of occasional lancinating pain, which is chiefly troublesome at night. Being unwilling to part with the diseased limb she returned to her home in the country.

Scirrhus Cancer of the Foot.

December 20th, 1827.—George Kimpton. Two years since a horse trod upon his left foot; the injury was attended by slight swelling and discolouration, producing lameness. The swelling continued for three months with pain at intervals for which vinegar and other poultices were employed. Within the last six months several small hard tubercles have appeared on the dorsum of the foot. Some of them are now in a state of ulceration and severely painful at night. The sore occupies the upper and inner part of the foot, superficial, irregular, covered with a yellowish tenacious slough, oozing sanious, toes œdematous. One inguinal gland enlarged. Appetite good. Tongue clean.

Jan. 5th, 1828. Limb removed below the knee.

10th. Stump healthy and granulating.

This patient left the house at the latter end of May following, as his health was suffering from confinement. The stump never perfectly cicatrized. The whole of the inguinal and pelvic glands had become enlarged, indurated, and very painful since the operation, and there was small probability that he would long contend with the disease.

A perpendicular section of the disease exhibited a dullish white mass of a cartilaginous hardness, particularly towards the centre, traversed by white lines. The disease adhered to the neighbouring tendons and ligaments, penetrating between the metatarsal bones, which were preternaturally soft throughout.

The integument of the trunk I have seldom seen the seat of scirrhus cancer. Several years ago, I removed from between the scapulæ of a middle aged female an elliptical portion of thickened skin, a hand's breadth in diameter, which was of a deep crimson colour, and covered with tubercles of a hardness like cartilage, and some ulcerating. Its appearance was suspicious, but I find her health has since remained undisturbed and the cicatrix firm.

When scirrhus cancer is seated in the aponeurotic texture, it is either a degeneration of the simple chronic ulcer, as the long standing sore of the lower extremities; or the breaking up of indolent and callous morbid textures, as warts, bunions, and old cicatrices, in persons having this diathesis.

An old lady who had extensive ulcers of the legs of many years' duration, and which had acquired a truly malignant aspect, was attacked with a cancer of the antrum and cheek, to which she speedily fell a victim. This, like many other cases of chronic ulcer approaching a state of healing, wore an appearance of metastasis, for it followed upon a more improved state of the leg ulcers and a much diminished secreting surface.

Scirrho-cancerous Ulcers of the Ankle and Heel.

July 1815. Henry Hendon has a large ulcer on the outer ankle of the right leg, its edges thick and everted, surface irregular, and bleeding on the slightest pressure. It has a profuse fetid discharge, and is attended by a burning pain. The origin of the sore was an injury received in India twenty-seven years ago. The increase of the ulcer and the pain, with obviously declining health, induced him to submit to amputation; which I performed on the 9th of August, a month after his admission.

Sept. 4th. The stump was healed, but the inguinal glands over the femoral vessels had become enlarged and formed a painful tumour.

30th. The swelling is now as large as an orange. The skin adhering, very thin, almost transparent, and discoloured.

Oct. 5th. A dark spot points at the centre of the tumour; it was punctured—a few drops of blood only followed the lancet.

10th. A fungus protrudes at the opening, and the disease extends under Poupart's ligament towards the abdomen.

Dec. 20th. The fungus now assumes the cauliflower appearance and occupies the entire hollow of the inguen. He is worn out with pain and loss of rest, and is wasted to a skeleton.

Feb. 13th. He died. I regret that I have no account of the post mortem examination.

A case similar in character to the foregoing, was that of William Stevens, mariner, whose ulcer is described “as of a truly malignant character, occupying the left heel and adjoining sole of the foot, the edges elevated, abrupt, and callous; granulations broad and irregular, of a peculiar dark hue, intersected by numerous filaments of the plantar aponeurosis; the discharge sanious and highly offensive. At the same time a livid-coloured tumour is seated in the right inguen as large as a hen's egg.” This man soon after fell a victim to the disease. A third case I remember to have occurred under Mr. Forster, at Guy's Hospital, having been, like Hendon's, the subject of operation prior to the formation of the inguinal tumour.

I have also the particulars of the case of Robert Weir, whose leg I amputated in 1817, which though it had a favourable result as far as I observed it, was considered malignant, and I believe justly, being precisely the inveterate incurable ulcer to which the cancerous action often succeeds.

Seventeen years before he had ruptured the tendo achillis, and lacerated the integuments of the ankle-joint, in a fall from the mast head. The wound slowly healed, but has since repeatedly broke out afresh and again cicatrized, leaving the integuments of a livid colour. For five years past the tendon has been denuded, and since February of this year, the ulcer has become deeper and a severe lancinating pain is felt about the os calcis. At the time of the operation, July 18th, the ulcer was in length about four inches, communicating with the ankle-joint, several pieces of tendon and ligamentous membrane having sloughed. It is encircled by fungous florid granulations, some everted and others inverted, all rising high above the edges of the sore and discharging a fetid matter; the surrounding parts are painful to the touch—pain extends in distinct lines up the leg and there is an enlargement of the glands in the groin. He left the hospital with a sound stump, in August following.

Before quitting the class of scirrhus affections of the external regions of the body I have to observe, that there is a tubercle of the subcutaneous

cellular membrane and skin, which appears distinct from any morbid affection of gland or other organ, and which has its original and proper seat in the common integument. Instead of being of loose and pulpy texture, as the insulated medullary tumours, it is hard and unyielding, feels like an indurated gland, adherent to the skin, and appears in all regions of the body, from the scalp downwards. It does not ulcerate in my experience, though tender to pressure, and sometimes slightly tinted with colour. The section is firm, white, semi-organized, with a tinge of black in the centre; in short, it resembles the tubercle often seen upon the serous membrane, as of the pleura and peritoneum, in persons who die of carcinomatous hectic, as the persons so afflicted die, and in whose viscera I make little doubt these tumours would generally be found.

My attention was early directed to this affection, from having watched a woman named Fraser, who had these tubercles scattered over her whole body, and died emaciated to an extreme degree in Guy's Hospital during my apprenticeship at that institution. I regret that I have mislaid my notes of the case. This disease is denominated tuberculated sarcoma by Mr. Abernethy in his classification. I have since seen a similar case in an aged countryman, in which some of the many tumours were firm and incompressible, others soft, and the skin purple where it covered them. He was at that time very

gradually declining in health, which had been hitherto good.

The same description of skin tubercle is seen not only contiguous, but even in remote parts of the body, in some women who labour under scirrhus cancer of the breast. Their diffusion over the surface, and their analogy to the scirrhus tubercle of the liver, the uterus, and other viscera, combine to present the phenomena especially characteristic of the medullary cancer, in a manner not to be overlooked. I have repeatedly seen them upon the serous membrane of the chest or abdomen in combination with the genuine medullary disease of the surface, proving the common relationship of the species, and rendering it probable, that the texture or the temperament influence the external developement more than is generally supposed. In short I am disposed to consider such tumours as partaking the character of both species, and should name them scirrho-medullary tumours.

Cutaneous Medullary Tumours of the Arm and Trunk.

February, 1826. Bird, bricklayer, æt. 33, had from his childhood a pimple of the size of a pea between the thumb and forefinger of his left hand. The head of it was taken off by a wound with a chisel last spring; he was unable to heal the wound in consequence of a fungus sprouting from it, bleed-

ing on the slightest touch; he therefore got the part freely excised, and the wound healed. Now the glands of the axilla began to swell and became painful, and a tumour appeared opposite the inner edge of the biceps at the inner and upper part of the arm. Soon after which other similar tumours appeared on the anterior part of the forearm between the elbow and wrist, extending in a chain in the course of the absorbents down into the palm. Not long afterwards, others sprouted up about the elbow, extending upwards towards that which first appeared in the upper arm. The fungoid growth now re-appeared at the wound and was again extirpated, but the wound never afterwards healed; the growth was repressed by the strong nitric acid. The tumour of the upper part of the arm, of the size of a pullet's egg, was punctured, and discharged a transparent ropy mucus. Prior to the wound he had always had good health; but had lost two sisters by cancerous complaints.

February 16th. There is now a fungus of the size of a walnut protruding from the wound in the hand, covered with dirty white slough, and frequently bleeding; also a similar tumour in the palm; and extending from the wrist up the inner side of the arm a series of tumours, all possessing the same generic character, and varying in size from a pea to a walnut, all conoidal in figure, livid in colour, skin stretched to the utmost, and polished, and feeling as if they held a fluid. The axilla has likewise a conoidal tumour of the same kind. Lancinating pain

in the hand and arm occasionally, especially when touched. He was ordered small doses of sublimate with sarsaparilla.

26th. An attack of erythema extending over the arm and side to the last rib. Tumours increased in size and the whole limb exceedingly painful. Leeches and fomentations. Calomel and opium.

March 4th. Pain severe and increasing, appetite failing. Tumours increased in size. The points of the tumours ulcerating and a very fetid sanious pus discharging. Fresh tumours have appeared since, under the action of mercury.

15th. Mouth has been very sore, all the tumours increased, and likewise the fungi. More of the old tumours have ulcerated and fresh ones spring up in the neighbourhood. Mercury withdrawn.

22d. Pain prevents his rest and destroys appetite. Several more of the tumours have ulcerated and assumed the same characters as the others in which that process had occurred, viz. the formation of conoidal eminences, the apices occupied by a sloughy fungus continually discharging a fetid sanies. Three or four contiguous swellings have united by ulceration into a common fungus near the elbow. Patient's appetite, strength, and spirits failing. Wine and opium.

25th. A fresh and ~~more~~ more severe attack of the in-

flammation, of the axilla and side of the chest, before mentioned.

30th. The sloughs are casting off and the wounds look cleaner, and more florid than they have yet done. The inflammation of the side continues and extends.

April 6th. All the fungoid excrescences have now a clean surface and discharge a tolerably healthy, though offensive pus; inflammation of the side extending. Takes scarcely any food.

12th. Sloughing process has returned. Tumours on the arm decreasing, their surfaces being thrown off; pain very severe, especially from the hand. Takes black drop at night.

17th. About a quarter of a pint of bloody matter discharged by the bursting of the axillary swelling followed by considerable relief. The whole side of the trunk inflamed.

23rd. There is now a continual free discharge from the axillary swelling; the fungi of the arm are flattened by sloughing almost to the level of the skin. The fungi of the hand bleed much, and are exquisitely painful. The inflammation of the side has disappeared.

29th. The stomach rejects nourishment and also

wine, which alone has supported him. He can take porter and drinks a quart per diem. Solution of opium to the arm and various narcotics tried ineffectually.

May 10th. The fungi all increased ; bled this morning to the extent of a pint or more. A large tumour opening and extending from the axilla under the pectoral muscle. The integument on the radial side of the arm, from the hand to the shoulder, feels knotted with small tubercles, slowly following the course of those which have preceded them. The edges of the large orifice on the axilla fungating ; the surrounding skin has a livid red colour like that of the tumours in the arm : a tubercle appears above the clavicle. Health sinking.

24th. A large sloughing fungus now protrudes from the opening in the axilla.

June 4th. Below the left angle of the lower jaw is a diffused, soft swelling extending downwards three inches, and exquisitely tender to the touch ; it additionally impedes deglutition.

6th. Since the last report, a troublesome cough with hurried respiration has supervened, and frequent spitting of mucus mixed with blood ; also frequent and free hemorrhage from the tumour.

7th. Died.

So great was the interest which the case excited, that the friends, to prevent examination, removed the body as soon as life had ceased, and pertinaciously resisted all solicitation to examine the viscera.

Cutaneous Medullary Tumours of the Abdomen and of the Mouth, Pharynx, &c.

May 1827. Onion, tailor, æt. 56, sallow complexion, and addicted to dram drinking, was admitted with ulcerated gums, proceeding apparently, and as he supposed, from carious stumps on the right side of his upper jaw. The teeth had been extracted, but he still suffered from the extension of the ulcer to the palate, and sharp pains shooting thence through the ear and to the top of the head. The alveolus on the right side, the back of the hard palate and the velum palati are swollen and covered with hard, pale, granulations. The inner membrane of the cheek has a circular ulcer with hard and thickened base and edges; he is quite unable to masticate and swallows with difficulty.

In the integuments of the abdomen are two adhering tumours, each the size of half an orange; the surface of one has a florid pink colour, the other, which is more extensively and intimately adherent to the skin, is purple and livid; these were discovered six months ago, and were then moveable, as is another of more recent appearance on the left side of the chest. No pain attends either, even on handling.

The ulcer of the mouth discharges a very copious, thick, and fetid secretion, streaked with blood. His pulse is 85. Tongue white with red tip. Belly costive. No appetite. Bad rest.

Various medicines and applications were employed to relieve his distress.

He became emaciated, and sunk under the disease, on the 23rd of July.

Sectio Cadaveris.—The ulceration extended very nearly over the whole palate, and the greater part of the bag of the pharynx. The front of the spinal cord adhering to the ligament; opposite the fourth and fifth cervical vertebræ, and in front of the right transverse processes, was an encephaloid tumour presenting a section similar to those of the abdomen and chest. These did not adhere to the fascia beneath them. In the fat surrounding the right kidney was a similar tumour, and several others were found in the mesentery.

The fourth plate (fig. 5 and 6,) of my “Synopsis of the Diseases of the Eye”, exhibits the appearance of an eye, the subject of the melanoid fungus, which I removed in 1820. The patient was a Mr. J., a man of 42, who had enjoyed good health until the appearance of this disease in the eye. He recovered rapidly and most favourably from the operation, but some time afterwards the common integument became studded with innumerable melanoid tumours;

and from the irritation and wasting thence induced, he soon died. The body, I regret to say, was not examined*.

No region of the external surface is more subject to be visited by the medullary cancer than the cervical, pectoral, and axillary; and parts circumjacent to the shoulder joint. I shall present two or three of many cases that I have witnessed.

Medullary Tumour of the Neck.

William Weir, æt. 23. In the summer of 1830 first perceived a small lump posterior to the sternomastoid muscle after catching cold. It inflamed, and was treated by leeching, but never wholly reduced. In this state he went to sea, the tumour slowly increasing, but far more rapidly on getting into warm latitudes. Whilst at Bombay the growth became acuminate with an obscure sense of fluctuation; a lancet was plunged deeply into it, which was followed by a little venous blood. Subsequently, on the voyage home, the disease rapidly increased to its present size. The general health not materially affected. Habit spare, pulse rapid. Pain remittent, not usually severe. The tumour was the size of two fists, dense, very slightly elastic, occupying the superior

* A most extraordinary example of the universal diffusion of this variety of the disease commencing in the eye-ball was published in 1826, by Mr. Fawcington, of Manchester, well illustrated by coloured lithographic plates.

posterior cervical region, throwing up the tegument of the scalp as far as the occipital ridge ; it presented an apex, or point, of a blueish hue, found on pressure to be the most yielding part of the whole growth.

In July of the present year (1831), a bold but well concerted attempt to extirpate the tumour was offered to the poor man as his only chance, by his surgeon, and my very able colleague, Mr. Green. It was executed accordingly, and by far the greater part was removed, but it was found impossible to eradicate the entire morbid mass from the situation and extent of its attachments, as will sufficiently appear from the dissection. He bore the operation with great fortitude, but after a few days sunk under symptoms of overwhelming constitutional irritation.

Dissection twenty-six hours after death.—The wound sloughy but contracted, having on its surface two or three fungoid growths, small and spongy, giving issue to a dark purple fluid on section. The situation of the disease was in that superior and posterior part of the neck bounded by the sternomastoid in front and the trapezius behind. Two processes of the growth, invested by a thin cyst, passed, the one portion downwards towards the posterior belly of the omo-hyoid and brachial plexus ; the other forwards, beneath the belly of the sternomastoid, adhering firmly to the sheath of the carotid, just below the bifurcation of that vessel, which was itself loaded with adhesive matter at this part. The

calibre of both vein and artery was much narrowed. In the direction downwards, the attachments and bellies of all the muscles beneath the trapezius seemed converted into the genuine brain-like fungus, which had not been affected by the sloughing process. The occiput, mastoid process, and transverse process of the first cervical vertebra were quite bare and rough, the latter still having a few tendinous shreds of the obliqui hanging to it. The cellular substance of the face and neck was at different points, sloughy, purulent, or thickened; the patient had been attacked by erysipelas two days after the operation. All the salivary glands were very pale, but otherwise unaffected by disease. The thyroid gland was enlarged and very hard, presenting on section a glistening, resinous appearance. Two or three small fungoid nodules were found in the seat of the thymus. A soft medullary deposit was occupying the middle lobe of the right lung, central, its greatest diameter about an inch and a half. A similar substance was found in the cortex of the right kidney, which was preternaturally soft and flabby.

Medullary Tumour of the Axilla and Pectoral Region.

July 20th. Sarah Keene, aged 30, had suckled till her admission. A tumour had gradually extended from the axilla to the right breast which it now completely involved. Leeches, poultices, and soap plasters were employed, though it was not painful. In September a puncture was made into a

prominent part of the swelling, from the notion that it contained matter; from this blood only issued. A month afterwards as it was increasing rapidly, and was now a good deal inflamed, a deep and free incision was made into it, from which a quantity of grumous blood escaped mixed with some pus. Constitutional symptoms set in, the wound turned sloughy, and a livid red disc surrounded it. Under a gently supporting treatment the discharge became healthy and the breast diminished in size.

Nov. The discharge had ceased, but a hardness remained on the outer side of the nipple.

Dec. The symptoms of suppuration returned, and the wound again discharged and threw up a large fungous growth.

Jan. 1827. The fungus had acquired great size, and from a fistulous orifice just above it large bleedings took place successively; these were arrested by cold applications. A consultation overruled an operation, and applications to cause sloughing, as strong nitric acid, caustic potass, were resorted to.

Feb. Parts of the fungus have separated and the sloughing continues. She has a good appetite, rests well, and drinks two pints of porter daily.

March. The right arm is œdematous and painful. Her health is now giving way. Excessive weakness, bad nights, total loss of appetite.

April. All the glands about the neck are inflamed and very painful, and the œdema of the arm increases. Health much broken. The fungus has much decreased under the pulv. sabinæ, with which it is constantly sprinkled. The upper arm appears to be suppurating and is very painful from distension—frequent rigors.

May. The swelling extends to the fore arm and hand, and a slough appears on the back of the hand. In the course of this month the painful glands in the neck have suppurated and broke. The fungus has almost disappeared, and the appearance of the sore is not unhealthy. She is much troubled and depressed by diarrhœa.

June. Symptoms of exhaustion; occasional delirium; continual looseness. The fungus re-appearing early in July, she died.

Sectio Cadaveris. The tumour, of a dirty white colour and pulpy consistence, occupied the space below the clavicle and the seventh rib, sternum, and margin of the latissimus dorsi, passing high into the axilla. A deep sloughing ulcer occupied the centre of the tumour and the axilla; and upon making an incision through it, a mass of brain-like matter was effused. On dissecting off the tumour close to the ribs and the intercostal muscles, their fibres, which were flaccid and very pale, were found to be intermixed with small white masses of a firmer consistence, extending through the costal spaces to the

pleura. The pectoral muscle was destroyed ; only the fascia covering its lower edge remained, much thickened. The principal bulk of the tumour was composed of the brain-like matter contained between thin membranous septa, with here and there a small collection of matter. The lung on the diseased side was uniformly and firmly adherent to the costal pleura. An abscess was found holding about an ounce of pus between the pleuræ near the spine, upon the edge of the diaphragm. The liver alone of all the viscera was diseased ; it had numerous pretty firm tubercles, especially on the under surface of the left lobe. The glands at the bottom of the neck, under the clavicle, two or three in the anterior mediastinum and in the axilla were enlarged and indurated. A large slough appeared on the back of the hand, and numerous abscesses beneath the integument of the fore-arm.

Medullary Tumour of the Shoulder.

November, 1821. Harriet Bentley, a young woman well grown, of fair complexion, was admitted into the hospital with a soft equable swelling which had gradually formed around the shoulder-joint, reaching from the acromion to the insertion of the deltoid, and from the coracoid process in front beneath the teres and latissimus dorsi muscles, whence it had a prolongation into the axilla, so as very nearly to surround the joint. It was attended with little pain, and she was unable to refer it to injury. After staying some weeks in the hospital, and finding that the

means employed gave no check to the rapid increase of the swelling, and suffering more uneasiness than at the time of her admission, she returned into the country.

In the course of the following year she came again to the hospital in a hectic state, the tumour having attained an enormous magnitude, and the integuments in parts discoloured, as if on the point of bursting. She died: and the morbid growth on section presented the appearance of the hæmatoid fungus, with here and there detached collections of pus. The muscles and capsular ligament were blended with the diseased growth, and much changed in appearance, and the bone partially softened. The most remarkable circumstance, though not new to my observation, was the entire state of the synovial surface of the shoulder joint.

Medullary Tumour of the Axilla.

Mrs. C., a fair young Jewess of scrofulous temperament, soon after marriage noticed a soft moveable tubercle beneath the tegument of the left axilla not larger than a pea, the germ of a tumour which during her pregnancy increased, and still more rapidly after delivery, being now of a firm consistence, filling the axilla, extending backward over the entire dorsum of the scapula, and forward over the cartilages of the fifth, sixth, and seventh ribs. The head of the humerus is much elevated, and the left mamma is

completely involved in the swelling. The greatest circumference of the tumour is fifteen inches. She has invariably good health, and does not complain of pain or much inconvenience.

This note was taken with a sketch, in my possession, of the tumour in its anterior and posterior aspects. The disease went on to affect her health, and soon proved destructive.

Medullary Tumours of the Thigh.

May, 1819. Maria Trifnail, æt. 30, maid servant, a handsome well-formed person, says, that for twelve years previous to any appearance of disease the slightest blow or strain of the knee-joint has occasioned unusual pain. In October last a swelling rose above the inner condyle of the femur, was fixed, and attended with pain resembling rheumatism; she used all ordinary means, medical and surgical, to disperse or repress the growth of the swelling. She then became an in-patient of St. George's Hospital, where the part was leeches and blistered alternately for a month, but obtaining no relief, she returned to her friends. The tumour has since rapidly increased, involving entirely the circumference of the thigh for two thirds of its length, and reaching downwards to the tubercle of the tibia; its girth is twenty-four inches, length fourteen. The tumour is in some parts soft, elastic, very tender to the touch, and the seat of sharp lancinating pain; the integument is

discoloured by patches of a livid red irregularly interspersed. About two months ago, viz. six months after its appearance, an enlargement was perceived in the groin below the crural arch on the outer side of the femoral artery; it is the size of an egg, not so yielding as the larger tumour, nor so tender, bearing moderate pressure. The woman's countenance is pale and anxious, and of late she has become much emaciated; she procures sleep only by the aid of opium, though she has no distinctly formed hectic. After some time, the prospect of relief being daily more discouraging, she abruptly left the hospital.

I assisted the late Mr. Compson, of the Old Jewry, in a high amputation of the lower extremity of a tradesman in Norton Folgate, for a medullary tumour occupying the entire circumference of the thigh; the sciatic nerve passed uninjured through the centre of the tumour. His death followed soon after from disease in the chest.

A fine young man had a subcutaneous medullary tumour removed by Mr. — from the front of the thigh; the wound healed kindly and remained sound. He died about three years afterwards from a return of the disease in the chest.

Medullary Tumour of the Ham.

In the spring of 1831, with the assistance of two surgeons of eminence, I removed by careful dissec-

tion a very large tumour deeply seated in the ham, i. e. immediately over its great vessels and nerves, of a delicate married woman of middle age. It had been about two years and a half in growth, and was from pressure upon the nerves become exceedingly painful. The pain was chiefly seated in the toes and outer side of the foot. The cavity left by the removal of the tumour, which occupied the lower half of the thigh as well as the ham, and was of some pounds' weight, granulated slowly, but soundly up. The patient gradually improved in health and soon afterwards became pregnant. The section exhibited the genuine character of medullary tumour.

1832. During the latter months of gestation this lady suffered severely from pain in the course of the sciatic and crural nerves, so much so as to render the use of the limb very distressing. This was attributed to the obvious circumstance of pressure, and she was consoled with the prospect of its being soon relieved. However on recovering from her accouchement, which was perfectly favourable, the incapability and more particularly the pain were greatly augmented. The latter was very little mitigated by opiates. It was accompanied with a sympathetic irritability of the stomach to such a degree as to occasion the almost constant rejection of food and medicine. The pain followed especially the course of the nerves, but was diffused so as to render the slightest pressure upon any point of the surface intolerable. The vapour-bath gave some relief, and internally, a drachm of the am-

moniated tincture of guaiacum with a few minims of the liq. opii, was, of many medicines tried, the most effective. There was a general but not considerable fulness of the limb as compared with the other, but no external indication of a renewal of the morbid action. The sea-side having been of great service in restoring the health and the use of the limb subsequent to the operation, she resorted to the same remedy on this occasion, and is now residing there. The pain, though much abated, is still felt on placing the foot to the ground ; the health otherwise sound. It is remarkable that the mamma, shoulder, and loin of the same side partook, though in a less acute degree, of the pain of the extremity. There has been no delusion or benumbment of sensation such as pressure occasions ; the whole character of the present complaint is neuralgia, and the only remedies affording any relief have been those of the tonic class.

Medullary Tumour of the Calf of the Leg.

August 18th, 1821. Joseph Wyman, æt. 18. His account was as follows :—A year since a small tumour appeared in the middle of the calf of the right leg : it gave no pain, but increased during nine months to the size of a large egg. It was then removed by excision, with a portion of the surrounding integument. In three weeks he began to walk about, the wound being imperfectly healed, and it threw out a fungus which has since bled frequently and largely. There is now a bleeding fungus evidently springing

from the fascia or fibres of the gastrocnemius muscle four inches long and three broad.

September 1st. The tumour was removed freely by an incision including the portion of the muscle into which it extended. Two arteries were secured and the wound dressed lightly.

20th. The wound has gone on kindly and the health is undisturbed. The granulations look healthy, level with the skin, and are on the point of cicatrizing.

A few days after this report the fungous character appeared in two or three distinct parts of the sore, and in a week became as large as walnuts, although rubbed with caustics in dressing.

October 2d. A small swelling in the groin.

9th. The fungous tumour much increased and irrepressible by escharotics. Health good.

16th. The limb amputated above the knee. On a section of the calf, it appeared that the belly of the muscle was half converted into the morbid growth which was deposited between its fibres in every direction, its interior surface remaining healthy.

21st. The stump dressed, very unhealthy, and gaping round the bone. No attempt at union.

23d. All the ligatures thrown off by slough, bleeding from the femoral artery, which was secured by a fresh ligature. Sore very unhealthy. Sanious discharge, no action in the vessels of the limb. The man was ordered bark and ammonia, opium, wine and good nourishing broths.

November 2d. Healthy granulations over the stump and the skin closed round, but a portion of the bone protrudes and is exfoliating, and prevents healing. Health much recovered.

December 25th. Suddenly attacked with violent pain in the abdomen with sickness; leeches and fomentation. Venesection; blister to the abdomen, saline aperients; fever diet, and mixture.

30th. Hypercatharsis. Mist. cretæ comp.

January 2d, 1822. A tumour in the right side of the abdomen, painful on pressure and gradually increasing. Bowels much relaxed.

9th. Was removed in a very debilitated state to his home: in four days after his removal he died.

Sectio Cadaveris. A large abscess was found betwixt the peritoneum of the muscles and that of the bowels on the right side of the abdomen; the colon, cæcum, and small intestines glued together by an adventitious membrane, forming one wall of it. There

was also a distinct abscess at the porta, the liver and diaphragm, duodenum and colon forming its sides. In the colon were found ulcerated apertures communicating with these abscesses. But no malignant appearance presented itself, nor were there any enlarged glands in the groin or loins.

Medullary Tumour of the Foot.

The following is the notice of a case by Mr. Delph, surgeon of Edmonton, in whose practice it occurred, and to whom I was indebted for the opportunity of treating it.

“ June 5th, 1826. Jackson, æt. 21, a servant girl, applied to me for relief on account of severe pain on the outer side of her foot, which was very much increased by pressure; there was neither swelling nor redness. I ordered leeches to the part and some soothing medicines. She continued in her situation until the following October, when she was compelled by her suffering to leave it, and shortly afterwards a small round tumour appeared on the same spot to which the pain was referred. Leeches and fomentations were again applied without diminishing the swelling; there was every appearance and sensation of a fluid, but a few drops of blood only escaped when I punctured the tumour. Shortly after a fungus shot up from this opening.

“ On the 7th of January, 1827, Mr. Travers re-

moved the diseased part including the metatarsal bone and phalanges of the little toe. On the second or third day after the operation, erysipelas came on and general swelling of the limb, with a tumour in the groin, which suppurated and afterwards healed. The swelling of the limb never subsided, and on the sixteenth of the same month secondary hemorrhage came on; the bleeding vessel was secured by ligature. Some time after, a fungus projected from the wound and other fungi appeared on the dorsum of the foot; the discharge from the wound was copious and unhealthy, and it shewed no disposition to heal. The inguinal and cervical glands became enlarged to the size of hen's eggs. She lingered until the 29th of March.

“ *Sectio Cadaveris*, March 30th, 1827.—General emaciation of the body—the inguinal and abdominal glands presented the appearance of one immense mass of fungus within and around the pelvis, and the whole lymphatic glandular system was similarly, more or less, diseased.

“ (Signed) N. DELPH.”

OSTEO-MEDULLARY TUMOURS.

The anatomical museums present specimens of fungi springing from various parts of the osseous fabric. The bones of the face, the orbits and maxillæ, the ribs, ossa innominata and bones of the extremities, especially of the lower, are those most frequently so

affected. Of these the greater number are to be considered as of an innocent, however intractable, character: and the softening of the shell, its ulceration, and the abscess of the cancelli of bones whose texture is broken up by the encroachment of malignant tumours, whether scirrhus or medullary, is not, in many cases at least, to be considered other than as a local and contingent circumstance. The remarkable facility of fracture pervading the bones of cancerous subjects, seems to shew that their texture undergoes a specific change, since the phenomenon is peculiar to this class of diseases; and the fungus springing from the orifice of a bone, as the tibia, in the centre of a cancerous ulcer, has often the identical character of granulation that belongs to the soft parts, and not that which we familiarly call bony granulation. I am, nevertheless, rather disposed to regard the morbid changes which we see in a bone involved in scirrhus tumours or ulcers of the soft parts, as secondary, and the legitimate results of absorption from contiguity and pressure, than as evidence that the bone is ever primarily a seat of scirrhus-cancerous ulceration.

But when we see a bony swelling presenting as its external character, a roundness and diffuseness, so to speak, as nearly analogous as its texture permits to the medullary tumour of soft parts, increasing in size and gradually becoming spongy, eventually so elastic as even to give an idea of fluidity, with the peculiar change of the integuments which extraordinary

distension occasions, and after no long interval throwing up the livid tuberos prominences of the medullary fungus, we are warranted in concluding that the disease, as such, had its commencement in the interior or cancellated structure. Such was the case about to be related, which had at first and for many months only the character of spreading exostosis, resembling what has been called the spina ventosa, and apparently seated in the head or tuberosities of the os humeri.

*Osteo-Medullary Tumour surrounding the
Shoulder-joint.*

A gentleman, æt. 35, of remarkably fine person, was resident in the East Indies when the first symptoms of this disease appeared. He could refer to no injury as an exciting cause, but considered that the disease had originated from exposure to a land wind, while sleeping in a newly built room. When I was first consulted upon the case three years ago, and indeed long afterwards, I considered it of simple origin and character. It was, as I thought, a bony enlargement of the great tuberosity of the humerus anteriorly, raising and fixing the pectoral muscles so as to obliterate the subclavicular fossa; and such was its situation and its size, that the proper motions of the joint were destroyed. The elevation of the tumour was not considerable, and a dull pain of the arm, the muscles of which were wasted and flabby, seemed to result from the pressure and stagnation of its vessels and nerves. The health was unimpaired, and the

disease considered to be what I should denominate periosteal exostosis. Impatient of the loss of motion and change of figure of the shoulder, this gentleman placed himself under the care of surgeons, who substituted for the quiet hitherto enjoined, active frictions, and extended artificial motion in all directions. From this time the disease acquired an alarmingly active character, both in its increase and the pain attending it. These frightful consequences, when too late to be arrested, no means were left untried to appease and mitigate. The baths of the continent and our coast were had recourse to, and counter-irritants of the most efficient kind perseveringly employed without effect. As the tumour crept round the joint, it became soft and equable, and at length semi-fluid like, and fluctuating to the touch.

Many months elapsed before the fungoid character was demonstrated. The intervening change was like that of a dropsical accumulation, so that some eminent surgeons who at that time saw the case, proposed plunging into it a trocar. The distress of its enormous magnitude and weight constituting a source of incessant irritation, and the difficulty of finding an endurable posture for even a short time, have greatly impaired the powers and spirits of the patient, who is still struggling with the disease. The deformity is now frightful, dark blueish-coloured fungoid elevations appear in three or four spots. The reticular texture of the skin, stretched almost to bursting, presents a curious appearance. The size of the tumour is as follows. A tape passed under the

axilla over the acromial extremity of the scapula on the sound side measures fourteen inches, on the diseased side, two feet ten inches. Under the axilla, over the apex of the tumour, three feet. Around its base below the insertion of the deltoid, eighteen inches.

• 1832. This gentleman died exhausted in April last. I sincerely regret to add, there was no post mortem examination. The only circumstance of the history requiring notice was a spontaneous discharge, upon two occasions, of encysted matter, to a considerable amount, which however scarcely occasioned a perceptible change in the volume, though it temporarily diminished the weight and tension of the tumour, and thus eased the pain.

The following case illustrates the innocent character of the ordinary exostosis of the same part, and perhaps also evinces the discretion of an opposite plan of treatment.

“ Jeremiah Cox, æt. 50, fractured the joint of the shoulder thirty-four years ago; it is sixteen years since it began to tumify, accompanied by rheumatic pain: it has since been gradually enlarging, and the tumour is now enormous, in some parts osseous to the touch, in others gristly, covering the entire dorsum scapulæ, extending inferiorly as low as the insertion of the deltoid, and anteriorly covering the junction of the scapula and clavicle. Skin very thin and shining, yet no heat or appearance of inflamma-

tion ; health good, tumour only restraining the motion of the arm. He has carefully abstained from all undue exertion and stimulating applications, though long since incapacitated from following his duties as a seaman."

*Osteo-Medullary Tumour surrounding the
Knee-joint.*

I amputated the leg of a young gentleman, æt. 20, several years ago, for an elastic spheroidal tumour surrounding the knee-joint of some years' standing, attended by most excruciating pain. Surgeons of the first eminence had seen him successively and their opinions were divided as to its nature. One thought it the scrofulous white swelling, another a spina ventosa of the head of the tibia : the external characters however were distinctly those of the medullary fungus, when I was introduced, and upon consultation with Mr. Abernethy, decided upon the removal of the limb. It was of great size and the soft parts entirely changed and lost in the morbid structure, which was that mixture of deposit and disorganization so often, though so imperfectly, described ; the extremities of the bones forming the joint were softened, and the head of the tibia was excavated and filled with the fungus which communicated freely by ulcerated openings of the shell with the surrounding diseased growth, but the synovial surface retained its integrity, though one side of the joint had a deep red tint, as if recent acute inflammation had existed. He died two

years afterwards of a return of the disease in the chest.

The disposition to a multiplication of bony tumours in distinct and remote parts of the same texture, of itself affords no proof of malignancy, for this has been commonly observed of exostosis, of ganglions of the bursæ mucosæ, of nævi, and even of adipose tumours. Thus the ossific diathesis may be so predominant as that several distinct exostoses, as I have often seen, may appear in the same subject without disparagement to the health. But if, in addition to rapid growth and the peculiar change of the soft parts, the patient's health sensibly declines; if, after the removal of a limb the seat of such a tumour, a similar tumour presents itself in the course of the absorbents, as for example in the lymphatic glands of the groin after amputation of the leg; and if, lastly, upon examination, either of the viscera should be found to contain a cancerous tubercle, the evidence is conclusive in proof of the malignant character of the original tumour.

Osseous Tumour of the Leg and Groin.

Two years ago I amputated the leg of a young man, who had an osseous growth from the outer side of the fibula extending one third of its entire length. The soft parts were changed and gave the impression of a malignant action in the tumour. The section shewed a smooth and homogeneous surface both of the cylinder and tumour, resembling ivory. There

was not a vestige of the cells or lamella of the bone. Before the stump had healed, my attention was directed to a cluster of lymphatic glands in the groin of the same side, which had become ossified and fixed since the removal of the limb. It did not increase considerably, and the young man went into the country when his stump was healed. I confess that I entertained serious apprehensions of the increase of the inguinal tumour beyond the reach of remedy. His health was declining rapidly.

Tumours which are adherent to the periosteum, bound down by strong fasciæ, have a great degree of firmness, and are sometimes supposed to be osteosarcomatous, when they are not so in fact. Of this an instance occurred lately at St. Thomas's, where a young man suffered amputation at the shoulder-joint for an oblong intermuscular tumour of the upper arm which was so connected, and of great firmness; but the section, though the greater portion was of the semi-organised udder-like species, clearly shewed the incipient medullary cancer.

In the spring of the present year this young man returned to the hospital with a tumour of similar character, but softer consistence, occupying the pectoral and axillary region of the same side. His health had undergone a fatal change; he had the rapid small pulse and the sunken cheek of a doomed man, and will most probably be no more when this paper is published. The amputation of an entire limb at

its articulation, for a not advanced or at least not strongly developed form of the disease, seemed to offer the most favourable chance of its elimination from the system.

I remember a man in St. Thomas's Hospital, who had a large bony fungus upon the leg, one on the right os innominatum very large, another on the opposite side of the pelvis within the abdomen, and several upon his ribs; the pleura being in many parts converted into bone.

Osteo-Medullary Tumour of the Ribs.

Elizabeth Davis, a child twenty-two months old, had a tumour of twelve months' growth, situated between the dorsal spine and left axilla. It had increased very much of late, tilting outward the inferior angle of the left scapula. It was evidently submuscular, as, though slightly moveable, the fingers could not be passed beneath it. Being taken for a deep seated abscess, it was punctured deeply three times successively; the cicatrix after each puncture seeming to point as if indicating matter—blood only issued. The mother removed the child, which soon afterwards died, and I was allowed to examine the body. The disease was a fungoid tumour of the consistence of cartilage, and of great size, both within and without the ribs, which were partially absorbed as well as the vertebræ adjoining. The circumstance worthy of note was, that the diseased masses, of a texture

perfectly similar, though closely adherent to the wall of the chest on its opposite sides, (as I have seen the medullary fungus on the opposite sides of the sclerotic,) no where communicated with each other. I considered the origin of these growths to be bony.

Where the bone is without diplœe, as in the face, the fungus takes its origin from the mucous membrane which lines it, and is not osseous, though spiculæ of the bone which has been absorbed, are intermingled with it.

The flat bones seem to be especially subject to the medullary cancer, judging from the several cases I have seen affecting the ossa innominata and cranium. Of the latter, one in particular I recall to recollection, in which a large soft tumour presented itself on the parietal bone of an old woman, and a section being made of the integument under the impression that it was an abscess, a free hæmorrhage followed, and the bone was found to be completely absorbed. Upon examination after death, which quickly followed, a hæmatoid tumour was discovered, occupying the space betwixt the dura mater, to which it firmly adhered, and the distended integument of the swelling. I have seen the same hæmatoid fungus upon the dura mater of the anterior lobe of the cerebrum, at the back of the orbit, accompanied by absorption of the posterior walls of the orbit. We see other examples in the medullary deposits which take place under the pericranium of the frontal bone, after the

medullary fungus of the eye, absorbing the bone. On the whole I conclude that the medullary cancer affects the cellular structure, connecting the fibrous membrane with the bone, and likewise that of the cancelli of bones possessing a diplöe. The state of the periosteum, as of the cancelli, depends in part on the original seat, and partly on the stage of the disease.

CONCLUDING OBSERVATIONS.

I recognize two species of malignant disease, the scirrhus and the medullary, the former not belonging to any particular constitution or temperament, the latter decidedly prevailing in, if not allied to, the strumous diathesis. Each species has its varieties characteristic of the texture affected, or of the peculiar habit of the individual.

Both consist essentially of foreign or adventitious matter, in whatever structure or under whatever form they appear.

Natural textures forming their bed become involved in the specific disease.

The scirrhus has a more limited range than the medullary; cellular texture is the common seat of both forms; that which enters into the composition of

glands, simple and compound, is especially the seat of scirrhus.

The medullary originates in cellular texture of all kinds, especially that which forms the connecting tissue, as the substratum of the several classes of membrane, cutaneous, serous, mucous, fibrous, and the connecting web of muscular fibres.

The primary form of scirrhus is unorganized tubercle, nucleated, and disposed to gradual softening of the centre.

The primary form of medullary cancer is cyst, containing either a cream or amber or chocolate coloured fluid, and investing a reticulated or spongy growth, sometimes peduncular, and sometimes of extended base, assuming various degrees of consistence and shades of colour, whence its numerous names founded on as many analogies.

The second or consecutive changes of both species disguise as they proceed, and at length obliterate the elementary character. Attempts have been made by some modern pathologists to unfold the elementary textures of these morbid growths, to refer their formation and development to cysts of different grades of evolution, and advancing from the simplest to the more complicated forms, to demonstrate an uniformity of arrangement and development sufficient

to warrant a classification of all the varieties of adventitious structure. The attempt appears to me to be more ingenious than convincing. Powerful lenses co-operating with a vivid imagination are apt to convey delusive appearances and analogies; and at all events such observations should be received with much caution after inflammatory changes have commenced, which are in their nature disorganizing and destructive, especially if undertaken to illustrate a preconceived hypothesis. Simplicity is not less the characteristic of original and natural structure, than the absence of it of that which is adventitious and preternatural; and the wildness and wantonness of disease, strictly so termed, are such as to render every individual of this formidable species a subject for separate analysis, in fact anormal. I have nevertheless long entertained an opinion that the ordinary mode of treating morbid specimens is such as to convey little information of any kind, and not seldom that which is erroneous. I mean the simple inspection of a recent section and its preservation in spirit,—an over fastidious caution to preserve inviolate rather than to unravel and take to pieces—and thus to sacrifice the opportunity of present and permanent instruction to the silly vanity of decorating the shelves of a cabinet. Multiplied sections, subjection to a graduated stream of water, maceration, compression, as well as the instant dissection of parts on removal, would yet throw much additional light upon morbid anatomy.

A reticular texture, loose or compact, sometimes

containing fluid, sometimes a solid deposit, may be stated to be the general basis of morbid formations ; the arrangement presenting every variety as to definitiveness of form and size. Such I conceive to be the origin of cyst and sac, as well as their organized products ; cellular texture, the connecting and all-pervading medium of animal structures, being the only cognizable substratum of organization in the reparation of injury or the manifestation of morbid growth.

The situation of the disease imparts a feature to it as peculiar, or even more so than the stage. As for example, a lymphatic gland, a muscle, a fibrous membrane, or the subcutaneous tissue ; but still more strikingly a composite organ, as the stomach, liver, testicle, &c.

The characters of the scirrhus and medullary cancer, strongly marked and for the most part distinguishable as they are, present varieties of approximation and dissimilarity evidently incidental to situation. With respect to the varieties which prevail in the consistence and colour of tumours of the medullary species, I cannot assent to the opinion that these constitute any essential natural distinctions as to their family relation. The general features of diseases, as of landscapes, are similar, the details ever varying ; no two individuals present more than the family likeness, although this is impressed with sufficient strength to admit of their immediate recognition. The local

influence is perhaps the greatest, but it is probable that the constitution also exerts a powerful one in promoting these varieties. The fungous growth of the dura mater and the membrane of the alimentary canal, it could scarcely be expected should exactly resemble each other, more than the fungus of the eye and the liver. The melanosis is by some supposed to constitute a distinct genus, although the tint of colour whence it derives this appellation, is the sole phenomenon distinguishing it from that which has been termed encephaloid*.

But the deposits formed in the lymphatic glands and muscular fibres, the tumours seated in the sub-cutaneous and intermuscular cellular membrane, in

* Mr. Fawcington's case, before referred to, is the truest specimen of the variety called melanoid, and which he, following the opinions of some eminent authorities, considers to form a distinct class of malignant tumour. I confess that, though unable to explain why this tumour should bear the black or reddish brown tint, and others the cream-white or amber-yellow, I can see no such difference between the malignant growths in the incidental features of size, consistence, form, and colour, as counterpoise their many and irresistible features of relationship in seat, organization, rapidity of increase, extent of origin, and mode of termination. The former are local varieties, the latter are constitutional standards. Of all there are doubtless encysted and unencysted or diffused forms, the latter I consider to be the secondary mode of deposition—I say deposition, because I can conceive of no excrementitious process by which the organized product of cysts, or that which is interstitial to the parenchyma of the viscera or of muscular fibre, and which takes its place as by a process of conversion, can be accounted for upon any known principle of the vital economy.

the eye, in the liver, &c., do severally resemble each other so strongly, that a practised observer quickly determines their nature from their analogy ; and the scirrhi of the skin, the mammary glands, the pylorus, and uterus are just as strongly characterized and classed.

I have not seen blood vessel, nerve, or their sheaths, the synovial capsules of joints and articulating surfaces, or bursæ, affected by either species of cancer.

The fibrous membranes, as the periosteum and dura mater, I have several times seen giving origin to such tumours.

The skin and cellular membrane, mucous and serous membrane, muscular fibre, aponeurosis, and glands, both lymphatic and visceral, afford it a more or less frequent origin.

Does the disease invariably begin in deposition ? In other words, is it always in the surgical sense truly a tumour in its origin—a new production ? On this point I entertain no doubt. It is true we may sometimes first perceive it in the stage of ulceration, as in the face or lip, but this is an advanced stage, however superficial and small in extent may be the loss of substance ; prior to this there has been an adhesive deposition, and the ulcerative process has been set up in pursuance and consequence of this change. So a pimple upon the soft skin of the glans penis, or pre-

puce, of the eyelid, or the lip, the patient invariably describes to have first excited his notice. Mucous and fibrous membranes are thickened and raised into tubercles and soft nodes. No structure is so remarkably converted as muscular fibre and gland into the medullary structure, their natural arrangement remaining for a considerable time.

The chimney sweeper's is the purest specimen of local cancer. Next to this the cancer of the lip; yet in both the constitution is predisposed, and unless it be, the occasional cause is ineffectual in producing the disease.

That the soot acts as an ingredient in the first formation of the disease, is shewn by the fact that handling soot will produce it, though the person has never followed the employment of a chimney sweeper.

Sir James Earle met with the disease in the hand and wrist of a gardener who was in the habit of carrying soot on the same arm to disperse it in manure, and thus produced a warty excrescence which afterwards ulcerated. It is further confirmed by the fact that the disease invariably returns if the party resumes, after its complete extirpation, the same trade; and in several instances of years' standing this has not happened, where the employment has been altogether abandoned.

In a virulent case of this disease in a country labourer, the sagacity of the surgeon, Mr. Earle, of St. Bartholomew's Hospital, enabled him summarily to pronounce its actual nature and origin. Upon enquiry it was ascertained that the patient had been five years before engaged in loading and unloading soot carts, and was after this employment attacked with a crop of warts in the groin which went on to ulcerate.

Yet that the disease requires for its formation a peculiar state of constitution, is proved by the fact that it never, or almost never, appears in the children and boys who form so large a proportion of the actual sweepers of chimneys. And that it is ultimately constitutional and thus destructive, no one can question who has watched its progress and termination.

Thus, in the cancer of the lip I have no doubt that the excoriation or hardening produced by the pipe is the general occasional cause; but of the number of smokers the proportion of persons so affected does not exceed that of cancerous to sound persons. The same observation would, I think, apply to the cases of cancer of the gum and of the tongue from diseased teeth.

Scirrhus cancer is in many cases grafted upon a morbid change of texture of long standing, whether tumour or ulcer, especially at a particular period of advanced life. I cannot positively attribute this cha-

racter to the medullary species, though in one or two instances I have been strongly inclined to that opinion.

I have not seen scirrhus and medullary cancer combined in the same organ, but I have repeatedly seen tumours in the same subject partaking of the characters of both species. For example, the scirrhus pylorus with medullary tumour of the ovaries. The cancer penis with medullary tumour of the groins and loins. The scirrhus mamma with the medullary tubercle of the viscera, both thoracic and abdominal. The cancer of the gums with medullary tumour of the pharynx and melanoid tumour of the common integument.

The modifications of texture I have no doubt explain an intermediate or mixed character constituting an occasional variety in such tumours, which serves the more to establish the individual species and the relation between them; and this combination would appear to extend in some rare instances even to the constitutional character. Thus the scirrhus tumour is sometimes multiplied indefinitely upon the skin, as related at page 373, or serous membrane, as mentioned at pages 353, 374, after the manner of the medullary, and the external medullary tumour is found upon examination after death to have been attended by an internal scirrhus, as of the liver or pylorus.

There is a class of tumours resembling scirrhus in

their character. They are for the most part unabsorbable depositions in the structure of visceral or lymphatic glands, the product of strumous inflammation, not susceptible or at least not disposed to suppurative action. To this belong certain tumours of the cervical, bronchial, lumbar, and mesenteric glands, ovaries, uterus, &c.

There is also a species of devastating and unhealable ulcer sometimes superficial, sometimes phagedenic, but making scarcely any impression on the health, and having no power to propagate itself by absorption and appear in other parts, which is the distinctive character of cancer, and stamps it a morbid poison formed in or absorbed into the blood. To this belong the several forms of the depascent lupus.

The subjects of these diseases resembling cancer of the scirrhus species, are for the most part scrofulous in their temperament, or labouring under a confirmed cachexia from the continual operation of depressing causes, as bad or insufficient food, or intemperate habits, or some internal organic change affecting the condition of the blood.

A still more striking resemblance exists between the changes of structure characterizing scrofula and medullary cancer; and it is certain that the latter disease often terminates by the intermingling or superposition of scrofulous inflammation, tubercle, or abscess, of which instances are given in the preceding pages. The following will illustrate my observation.

I attended and examined the body of a middle-aged gentleman, of a highly scrofulous temperament, who died of extensive abscess of the kidney. Within a few years of his death he had been the subject of suppurating glands of the neck, strumous ophthalmitis, and a similar chronic inflammation of the coats of the testis. In addition to a nest of abscesses in the right kidney, was an incipient tumour upon the same side of the lumbar spine, adhering to it, and filling the head of the psoas muscle. The muscular fibres were converted into a brownish yellow substance, which was extensively deposited between and around those which retained their appearance, and gradually shaded to its termination in the belly of the muscle. The section strongly resembled the incipient medullary tumour.

Dec. 8th, 1831. Porter, a miller, æt. 25, of strumous habit, received a blow on the right testicle five months ago. Some weeks afterwards he found the part swelled, but not painful. He had never been affected with the venereal disease in any form. Finding the enlargement to continue, and feeling occasional sharp pains across the hypogastrium, he applied at the above date for relief. The part was of the size of a large hen's egg, very firm, equable, and elastic, like a bladder tensely inflated. He was freely cupped, leeches, and purged, and confined to a recumbent posture. On the 26th December, while taking the calomel and Dover's powder and leeching at intervals, he was attacked with œdematous erysi-

pelas of the scrotum and inguina accompanied with fever. The erysipelas wandered over the abdomen and thighs. After recovering from this complaint, no change was observed to have taken place in the testicle, which was ordered to be freely anointed with mercurial ointment, and a calomel and opium pill prescribed to be taken nightly.

Jan. 30th. He was attacked with ague, which was soon removed by the quinine bark.

Feb. 6th. He complained of excessive pain at the bottom of the belly, which was tender to the touch; and the pulse seeming to warrant it, sixteen ounces of blood were directed to be drawn from his arm, but he fainted before two ounces had flowed.

On the 2d of March he was seized with loss of speech and motion, and partial stupor. His mouth was a little drawn to the left side. Cupping glasses were applied to the neck, a blister to the scalp, and full action of the bowels obtained.

12th. His speech, sense, and motive power partially recovered. His appearance was much emaciated; pulse quick and feeble, the condition of the testicle stationary. A hardened and irregular knotted cord was now plainly felt extending along the right brim of the pelvis, taking the course of the spermatic vessels and apparently moved by drawing down the diseased testicle. The cord was very little en-

larged, but partook of the induration of the testis. The poor man lingered till the 15th of April, the abdomen being very tense and painful, the testis unaltered. The mercurial ointment was very freely rubbed into the abdomen ; but the system was never affected by it.

Examination.—The testicle had lost its natural subdivisions, having an uniform smooth surface, and the close coat distended by a white lardaceous matter softer and more broken in the centre than at the circumference ; the fibrous septa standing inwards from the thickened tunic was all that remained of original structure. On the surface of the liver were several encysted abscesses, some as big as walnuts and some smaller.

The substance of this viscus on section presented similar abscesses. The contents of some were a deposit of cheesy matter, and of others pus, all being invested by distinct cysts. The spleen was studded with tubercles, also containing caseous matter, or the matter of scrofulous suppuration. From the lower part of the right kidney to the abdominal ring extended a solid encysted tumour, containing upon incision the same lardaceous matter as that filling the testicle, and a bright, yellow coloured, fluid in other parts, differing in colour but not in consistence from pus. The mesenteric glands were partially enlarged. The urinary organs were healthy. There was no organic change in the brain.

This case was altogether peculiar. No part of the treatment seemed to reach or even to affect the progress of it. From the severe abdominal pains complained of from the time of his admission, it may be inferred that the disease had already taken possession of that cavity. He was a dram-drinker, the bowels were altogether torpid or the opposite; and the mercury, never absorbed, seemed invariably and in all forms to irritate the system. The hard tumour lying on the brim of the pelvis was supposed by several observers during life to be scirrhus, and to demonstrate that the induration of the testicle was of the same description; while the lardaceous section of the testicle, and of the tumours of the liver and spleen, and the adventitious growth below the kidney, together with the amber colour of its fluid, conveyed to the minds of some present at the dissection the impression, that the disease was the medullary cancer. However ambiguous these circumstances, and fairly suggesting such ideas, the truth is clear that the disease was altogether scrofulous, and I adduce it for the purpose of shewing a resemblance which, if I am not greatly mistaken, has led to erroneous inferences both during life and after death, viz. the first period of observation allowing it to be regarded as scirrhus, the second, medullary.

Upon the whole I feel confirmed in the opinion advanced in my former memoir on this subject, that the medullary disease is the cancer of scrofulous habits. The great pathological distinction between

scirrhus and medullary cancer consists in this : the first is generally topical, and without any evidence of previous disease gradually impregnates the system with the poison which it engenders ; the second is in its origin a disease of the system, and its local manifestation, secondary. So that in the former there is a possibility by early operation of triumphing over the disease ; in the second we may gain a respite, but at the best of very short duration.

When indeed the health is materially impaired prior to the appearance of scirrhus, there is much reason to fear that the predisposition is invincible, for not only does the disease run a very rapid course, but the earliest removal of the part is almost invariably followed by a return of it.

The metastasis, as it would seem, from the surface to the viscera, is the most painful event which we are called upon to witness. I mean the case in which after operation, even the earliest, after absorption of the scirrhus, after the healing up in a great measure of the cancerous ulcer, the patient is attacked with spasmodic cough and alarming dyspnoea, or violent spasmodic pains shooting through the epigastrium, which soon become diffused and affect successively all parts of the trunk, especially the muscles of the spine and loins, and so paralyzing them that she is unable to maintain herself erect, or by her own efforts to turn in bed. Hectic irritation is constant, with profuse night perspirations ; the complexion is sallow, and

sometimes jaundiced; the flesh flabby and wasted. The secretions of the liver and kidney denote the imperfect function and then impaired structure of these organs, and at length the stomach rejects food. This case has been before me unhappily so often, as to qualify my anxiety for operation at any period.

Yet if the cases are rare in our experience in which the disease does not in some shape return, I believe those would be more rare in which it did, if the operation were performed immediately upon its discovery. On the ground of failure from delay, it would be as reasonable to condemn the operation for the strangulated hernia. Let there be no time lost in the removal of the tumour, or the stricture, and in both cases the operation will be oftener vindicated by its success.

But how can the diathesis be altered when the local mischief appears, or even when it is extirpated? This is the problem, and until we arrive at its solution, the disease will continue to baffle our best efforts. In both cases it is of equal moment; for though in one instance the mass of blood is in a morbid state before its product is deposited, and in the other the tubercle, while it remains sound, is inert in the generation of the poison, yet the constitution is predisposed to adopt the disease wherever the tubercle is formed, and once tainted, the cases become parallel.

The prevailing condition of the blood in the mor-

bid poison of cancer is yet to be ascertained ; indirect evidence of its vitiated state is furnished by the symptomatic changes observed in the subjects of the disease, and of which the strongest perhaps consists in the altered properties, if not texture, of bone. But yesterday I was called to visit a lady whose breast I removed, on the appearance of a scirrhus tubercle, four years since ; in whose case the return of the disease in the axilla confirms the cancerous diathesis. Though by no means an aged person, her thigh bone had been audibly snapped in two by an action of the muscles, purely involuntary, whilst sitting upon the sofa.

The views recently opened up by Dr. Stevens of the acute morbid poisons constituting the malignant fevers of Africa and the West Indies, and the disease now prevailing in this country under the title of spasmodic cholera, appear to me to demand the particular consideration of pathologists in reference to the chronic morbid poisons. In saying this, I profess no opinion of the merits of any mode of treatment adopted in pursuance of information obtained from the analysis of the blood, having no opportunity of forming one ; but I regard the discovery of certain material changes in the composition and properties of the blood in these diseases, rendering it in the compass of a few hours not only incapable of supporting life, but a poison to the system in which it circulates, as a phenomenon equally novel and important. It appears to me that it is through this medium

alone that we can hope to reach the disease in its elementary form, or pursue any rational plan for its destruction.

I am conscious that the preceding sketch of the several forms of malignant disease, as it appears in the different textures and organs of the body, is meagre in comparison with what a compiler of moderate industry might supply, and the style of my observations will probably be regarded as desultory, since I have allowed myself to speak in more detail than perhaps was necessary of diseases with which these are liable to be, and actually are, confounded. My object however is answered if I have succeeded, so far as verbal description permits, in representing with accuracy sufficient for recognition, the various appearances which this cruel scourge of humanity exhibits in its various sites; and in demonstrating a more comprehensive and practical classification than is indicated by the researches of some modern pathologists, who not being engaged in the practice of surgery, are perhaps less conversant with the character and relations of these diseases in the living subject.