A COURSE OF
LECTURES ON SURGERY,

DELIVERED IN THE
MEDICAL SCHOOL OF CAMBRIDGE.

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LECTURE XXIII.—HYPERTROPHY CONTINUED.

Polypi; their difference from warts; the causes of their peculiar shape; the different degrees in which they are related to inflammation as a cause; usual seats of polypi.—Polypus nasi; its causes, symptoms, and treatment; polypus uteri, consisting of hypertrophied mucous membrane simply, or of the hypertrophied uterine tissue conjoined with it; peculiar appearance of the latter when growing from the cervix uteri; other kinds of polypus uteri;—Exostoses correspond in their pathology and their shape with polypi; are sometimes covered with cartilage; situations in which they occur; they resemble in structure the bone from which they spring; treatment; ossification of tendons and ligaments; Pterygium, its seat, pathology, and treatment; chronic hordeolum; treatment; growths from synovial membranes: lipoma arborescens; loose cartilages and melon-seed-like bodies, their inflammatory nature and growing tendency.

IN the last lecture, gentlemen, your attention was directed to certain growths which, springing from the surface of the body, consist in the hypertrophied state of a circumscribed portion of its cutaneous or mucous covering. The term "growth" which we have applied to them indicates an opinion that their increase is, to a certain extent at any rate, owing to some inherent causes; at the same time I was particularly careful to show that they are in many instances dependent, especially at their commencement (sometimes, indeed, throughout their whole course,) on an inflammatory state of the part affected. I said also that the degree in which the inflammation acts as a stimulus to the growth varies greatly in different cases; sometimes it constitutes the sole exciting and maintaining cause of the disease, which subsides as soon as it is removed; at others it gives the first impulse to an unnatural activity of the nutritive forces, which continues after the inflammation has passed away; lastly, it appears, in a certain proportion of cases, to have no share either in the origin or in the progress of the disease. The practical importance of rightly understanding the relation which inflammation bears to the origin and progress of this class of morbid products in reference to their treatment is sufficiently obvious, and has already been pointed out to you.

In the instances just mentioned, of which a wart may be taken as the type, the disease increases by involving, that is, by communicating the hypertrophic tendency to, the surrounding skin, as well as by the continued growth of the part primarily affected.

Thus a wart enlarges in its basis at the same time that it becomes more prominent, and in consequence it sometimes occupies a considerable area. Now there is another class of growths which, in their general characters and real nature are very similar to warts, but which differ from them in one particular, viz., in their mode of increase. They are still more circumscribed in their nature, for their progress consists in the further enlargement of the tissue at the spot primarily effected, rather than by an extension of the disease at the circumference. Hence they have little disposition to spread over a surface; on the contrary, they project more and more from the surface, and gradually become pediculated; indeed, the basis of attachment, instead of widening, often becomes narrower, because the increasing weight of the mass, and the movements to which it is subjected, have the effect of narrowing the base, so that after a time the swelling assumes a flask-shape, and is called a "polypus." It may even happen that the neck becomes so narrowed as to be unable to support the weight of the mass, and gives way, or it may be torn through by some external force acting upon the polypus. The pear or flask-shape of these swellings is due, no doubt, as I have just said, in great measure, to their weight, and the movements to which they are subjected; but not entirely, for these influences are not sufficient to occasion the peculiar form in all the instances of this kind of growth in which it occurs; in the case of exostosis for example, as will presently be shown. It must, in some degree, be referable to the greater freedom of growth and expansion which is permitted at the distal, as compared with the attached extremity of the mass. You may, in like manner, observe the effects of this liberty of expansion on the free surface of warts, nævi, and other structures of that class, inasmuch as when they project away from the skin they generally sprout more luxuriantly, overhanging the surrounding integument, and in some instances becoming polypose or fungous.

You will find that polypi are related to inflammation as their cause much in the same manner as warts. Sometimes they are evidently of inflammatory character, deriving their origin, and the stimulus to their increase, from that disorder; at others, having commenced during an inflammatory attack, they go on growing in virtue of a continuance of the tendency thereby imparted, although the inflammation itself may have passed quite away. Lastly, they may begin and go on growing without the appearance of inflammatory disturbance having been associated with them at any time.

Of the two classes of growths, represented on the one hand by a wart, and on the other by a polypus, the skin is most liable to the former, the mucous system to the latter. This is no doubt explained in part by the papillary structure of the cutis and the absence of corresponding processes in the mucous membrane at the parts where it is most exposed to the exciting causes of this disease. Now and then we meet with cutaneous polypi in the form of little round or oval tumours, smooth and soft, consisting of hypertrophied portions of cutis, and attached by a narrow pedicle to the

surface of the skin, with the structure of which they are continuous. These, however, are, for the most part congenital, and do not increase in size after birth. More frequently you may see small elongated polypi hanging from the skin by a narrow pedicle and capped with a conical dry horny crust of cuticle. They look as if they were occasioned by the enlargement and protrusion of single papillæ, do not attain to any great size, and often drop off or are torn away by accident. Little pendulous masses corresponding with the first named of these cutaneous polypi are sometimes found attached by a narrow pedicle to the dorsum of the tongue. They also are often congenital and increase only so as to maintain their relative size during the growth of the body.

The schneiderian membrane is more frequently than any other the subject of polypus. It is so on account of its soft vascular structure, its liability to suffer from external agencies, atmospheric influences, &c., and more particularly on account of the loose folds into which it is thrown upon the uneven surface of the spongy bones. Polypi are almost always found attached to the external or turbinate side of the nostrils, and most commonly spring from the membrane covering the spongy bones. On the mesial side of the nostrils the membrane is spread out smoothly upon the septum, is comparatively in close contact with it, and, though it is often inflamed in that situation, and shows various effects of inflammation such as thickening and ulceration, it is very rarely the seat of polypus. Here is a specimen of the common polypus hanging from one of the spongy bones into the nostril. It is elongated from before backwards, and flattened at the sides so as to be accommodated to the shape of the nostril, and it is somewhat creased on the surface. You may see that it is continuous at its neck with the mucous membrane, and that it consists evidently of an elongation or growth of a circumscribed portion of the membrane. The structure as well as the mode of attachment corresponds with this, for it consists of a pouch of epithelial and basement membrane containing threads of areolar tissue, which enclose a serous or gelatinous fluid in their meshes; both the epithelial covering and the areolar interior being continuous with the adjacent mucous substance. These simple "mucous" or "gelatinous" polypi are tolerably uniform in their structure and appearance, and are recognised without much difficulty. Sometimes they are more dense than at others, occasionally they are ulcerated upon the surface, and now and then a cyst is contained in their substance. This was the case in the specimen here shewn you of polypus which I extracted from the nose of a labouring man; the sac is almost as large as a chesnut, occupies the whole interior of the polypus, has a smooth lining, and contained a glairy fluid like white of egg.

In the greater number of cases nasal polypi originate in an inflammatory condition of the mucous membrane. Perhaps the patient catches cold, and the inflammation remains in the nostril after the other symptoms have subsided. As a result of this continued irritation the

membrane becomes swollen, more especially in the parts where it is vascular, loose, and in folds; probably it is granular in some places and certain portions of it being more swollen than the rest project into the nostril. These, increasing in size and becoming pendulous in the manner just described, form polypi. When certain portions of the membrane have been thus stimulated into unnatural growth, they commonly go on increasing, although the primary source of irritation has been removed, they gradually fill up the nostril, obstructing the passage of air, and becoming in their turn the cause of much annoyance and inflammation in the surrounding membrane, so as to lead to the formation of secondary polypi in their immediate neighbourhood or in the other nostril. Hence we seldom find polypi existing singly; hence also the various distressing symptoms occasioned by their presence; for it is not simply the mechanical effects of a polypus—the difficult breathing, the altered tone of voice, &c.—that trouble the patient, he is subject also, more or less, to constant discharge from the nostril, sore throat, lacrymation and other symptoms of inflammation of the schneiderian and adjacent mucous membranes. Sometimes the discharge passing into the throat causes nausea, indigestion and general disorder of the health; or there may be pain radiating from the nose into the forehead and about the cheek. All these annoyances are aggravated by damp weather.

Extraction is the only treatment which affords decided relief. In order to do this effectually you should ascertain as far as you can the position, size, and attachment of the polypus. Pass the forceps well into the nostril with the blades separated, then close them upon the polypus and twist them round and round or withdraw them with a sudden jerking movement in the hope that you may tear the growth up by the roots, in other words, that you may pull away the pedicle with its basis of attachment, otherwise the torn end heals over and soon begins to grow again. This, indeed, is what commonly happens, for the pedicle being the narrowest part, is most likely to give way, leaving the expanded foot-like portion by which it is connected with the adjacent membrane. In consequence of the liability to this accident and the frequent occurrence in the same nostril of several polypi in different stages of growth, we are often obliged to resort to the operation many times before the disease is cured. Sometimes the mucous membrane may be restored to a more healthy condition, and the further growth of polypi be prevented by the injection of mild astringent lotions into the nostril, or by the insufflation of alum, powdered savine leaves, and other substances of the like kind. In this, as in all other local complaints, much may be done by attention to the general health.

Polypi of various kinds are met with in the uterus; they differ a good deal in their real structure, though they all take much the same course, give rise to nearly the same train of symptoms, and require the same peremptory treatment. The most common is the mucous polypus, of which you here see several examples. It corresponds in every particular with the

nasal polypus just described, consisting of a soft pale or reddish structure, derived from the mucous membrane, and continuous with it at its base. Most commonly it springs from the os or the interior of the cervix near to the os. In either case it projects after a time into the vagina, and becomes pediculated; when this takes place the polypus may be easily seen by the aid of the speculum, and extracted with a pair of forceps. The os uteri may be generally observed to present, in addition, a reddish appearance, with a granular, warty, or ulcerated state of its mucous surface; it is then advisable to rub the part freely with nitrate of silver, to prevent the further formation of polypi, as well as to check such as may be in an incipient stage. These little growths, of trivial importance as they may seem to you, create a great deal of annoyance, by maintaining a constant glutinous discharge, with frequent and profuse menstrual fluxes, a good deal of darting throbbing pain, and consequent disorder of the general health. It is necessary to use the speculum in cases where you have reason to suspect their existence, because from their small size, soft structure, and smooth surface, they are likely to elude the finger. I would advise you to make this examination in all cases of long-continued irritation of the os uteri where the symptoms do not yield to the ordinary remedies. If there happen to be a polypus, you will often find very great and speedy relief afforded by the simple treatment just mentioned. Though most frequently displaying itself about the mouth and neck of the womb, the affection may take place at other parts. In this specimen for instance is a vascular mucous polypus, with a broad base attached to the interior of the uterus, near its fundus.

In some of the specimens upon the table you may observe that the polypus does not consist of a growth arising exclusively from the mucous membrane, for the submucous and fibrous tissue of the uterus is in like manner continued into the polypus, and forms a considerable portion of its substance. This may take place at any part of the body, or neck of the organ. A tumour of this kind, of considerable size, distending the body of the uterus, is represented in Cruvelhier's "Pathological Anatomy," and is described there under the name of "uterine polypus." In the symptoms, progress, and treatment required, this affection corresponds with the other kinds of polypus; indeed its precise nature is not easily ascertained during life, for when small it closely resembles the common mucous polypus, when large it is scarcely to be distinguished from another form of polypus occasioned by the projection of a fibrous tumour into the interior of the uterus. I believe the polypus consisting of some of the uterine fibres, as well as the mucous membrane in a hypertrophied condition, is much more common than generally supposed. The degree in which the fibrous tissue of the uterus is involved, varies in different cases; sometimes it forms the chief substance of the polypus, which is then covered only by a thin extension of the lining membrane of the organ, at others the mass is chiefly composed of the altered mucous mem-

brane, with a few traces only of hypertrophied fibrous tissue. Here are several specimens of the kind, in most of which the structure may be clearly seen to be such as I have described, and to correspond with that represented by Cruvelhier, though none of them have attained to so great a size. Some of them are attached to the fundus of the uterus, others are seen to spring from the cervix. The latter may be observed in most of the specimens to be creased or furrowed in a peculiar manner upon the surface. These creasings, which have for the most part a longitudinal direction, are derived, no doubt, from a prolongation of the ridges naturally existing upon the interior of the cervix, and they form a coarse or hypertrophied representation of those ridges. The peculiar furrowed appearance of cervical uterine polypi has led to a mistake as to their real nature, for they have been described as a diseased condition of the little mucous follicles—the glandulæ Nabothi—which lie in the mucous membrane of the neck of the uterus. You will not be surprised at this mistake when you observe the varied forms of these polypi, some of them being flat, others rounded, and some much elongated, as well as bifid or tripartite at their extremities. There is also not unfrequently a granular condition of the cervix associated with them, as though there were other growths of the same kind in an incipient stage. Probably the term "disease of glandulæ Nabothi" would be more correctly applied to the little cysts which you see in this specimen lying in the substance of the mucous membrane of the cervix uteri, and projecting from its surface so as to become polypose.

There are, therefore, two forms of polypus originating in the hypertrophied condition of a circumscribed portion of the uterine structure:—First, the "mucous" polypus in which the affection is limited to the lining membrane; secondly, the "muscular" or "uterine," in which the fibrous structure of the uterus is involved, in a greater or less degree. Other kinds of polypus are also occasioned by the formation, near the inner surface of the uterus, of fibrous tumours and cysts, which, projecting more and more into the cavity of the uterus, or into the vagina, become pediculated, give rise to the same symptoms, and require the same treatment, as those just described.

The common osseous exostosis corresponds in its pathology with polypus in many respects, and affords another example of circumscribed hypertrophy. It depends upon the preternatural growth of some portion of a bone at or near the surface, is composed of true osseous structure, and is united to the bone by continuity of tissue. At first it forms merely a slight conical projection, but as it grows it becomes elongated, and not unfrequently it is expanded at the free end without undergoing a corresponding increase at the base. It then resembles a polypus in shape as well as in its relation to the part from which it grows. In the specimen here seen the exostosis, narrow at its point of attachment to the femur, suddenly enlarges, like a mushroom, into a broad flat surface, which is uneven, fissured, and composed of lighter and more spongy

structure than the rest of the growth. In such cases the exostosis is generally covered by a layer of cartilage or fibro-cartilage, which dips into the crevices seen upon the surface, and which, by its growth on the one side, and its gradual ossification on the other, contributes to the enlargement of the bony mass. It appears that exostoses upon the bones of the trunk and extremities generally increase in this way by the formation of cartilage and its subsequent conversion into bone, following the plan of ossification observed in the foetal state. The growth does not, even in the bones just mentioned, invariably take this course, or if it does, the transformation of cartilage into bone is sometimes so quick, that the former is scarcely to be discovered. You are aware that in the ossification of the skull the foetal membrane is at once converted into bone, an intermediate state of cartilage not existing at all, or being of very short duration; and it appears that the exostoses of this part of the skeleton are in like manner devoid of cartilage.

Sometimes exostoses spread along the surface of a bone, instead of limiting themselves to an increase of the part first affected; in which case the mass, instead of being pediculated, forms a broad flat elevation of the surface, as may be seen in the specimen here shown. Exostoses proceed not uncommonly from a blow or some inflammatory disturbance, and may occur upon any part of the skeleton, but are most frequently found upon the inside of the tibia, just below, and upon the inside of the femur, just above the knee, upon the skull, including the bones of the face, and upon the phalanges of the fingers and toes. As a general rule, they bear some analogy in their structure to the bone from which they spring; that is to say, they are dense when attached to the skull or the shaft of a long bone, and lighter and more porous when growing upon the terminal phalanx of a toe.

With reference to the treatment of exostoses, and indeed of most of the simple tumours originating in bones, it is important to bear in mind that they often cease to grow after having attained a certain size. When this is the case the exostosis becomes, in course of time, lighter and more porous, and may undergo changes corresponding with the fatty degeneration of bones, but it does not appear to diminish in size. The cessation in growth is likely to be favoured by rest: medicinal agents, local or general, do not exert much influence upon it. Excision affords the only certain prospect of relief, and must be resorted to when the exostosis continues to increase so as to be inconvenient from its size or position. Provided the bone is superficial this operation is easily effected, and is attended with very little danger. If it be deeply seated, I would advise you not to be too hasty in recommending the removal, for severe inflammation and interstitial supuration are likely to follow in a limb where the incisions have been carried to the extent required for such an operation. I have known a fatal result to occur from this cause after the removal of an exostosis seated upon the inside of the femur; and I have the notes of a case where the exostosis was situated so far down

upon the forepart of the femur that the synovial cavity was opened in an attempt to remove it, the patient dying shortly afterwards of the inflammation and fever that ensued. It is the most prudent course, where the growth is deeply seated, or where you are uncertain as to its real position, extent, and connections, to await the chance of a spontaneous cessation of its increase.

Very nearly allied to exostosis is the ossification which we sometimes observe to take place in tendons and ligaments at their insertion into bones. In this tibia, for instance, a spiculated growth of bone shoots upwards from the tuber on its forepart, and there is a plate of bone behind connected with the popliteal ridge. Both resemble exostoses in every particular, and are evidently occasioned by the ossification of the tendons implanted in those parts. A similar change has taken place at the attachment of the soleus to the head of the fibula. The same occurrence is not unfrequently observed in the ligaments of a joint which has been long affected with chronic rheumatism; and it is to be remarked that the bony substitute often exceeds very considerably the normal dimensions of the fibrous tissue which it replaces; so that the change does not consist merely in the transformation of the fibrous tissue into the osseous,—there is, in addition, a decided growing tendency in the latter. This tendency may exhibit itself, in a greater or less degree, at various parts of the skeleton, at the points of attachment of several muscles, in the form of separate exostoses, or in preternatural thickening of the bones, or in all these ways in the same patient. You remember that persons who were the subjects of rickets in early life are especially liable to this affection.

We will consider a few other morbid conditions which may be appropriately included under the head of circumscribed hypertrophy, and which will serve to illustrate that subject still further. One of the most common and most striking of these is "*Pterygium*." *Pterygium*, as may be clearly seen from these drawings, or from any instance of the disease, consists in a slowly progressive thickening of the conjunctiva at the inner part of the eyeball. You have, probably, remarked that the conjunctiva opposite the interval between the lids on either side of the eye is, in most persons, rather thicker than at any other part of the circumference of the cornea. It is most evident on the inside, between the caruncula and the cornea; and an increase of this thickening, beyond the bounds which may be regarded as natural, constitutes a pterygium. The affection is not confined to the conjunctiva covering the sclerotic, but extends also to the continuation of that membrane upon the cornea. It advances but slowly in the latter direction, because of the fine structure, great density, and close attachment, of the conjunctiva to the cornea; so that the growth acquires a triangular form, with its base towards the inner canthus, and presents the appearance of a fleshy vascular mass, stretching over the cornea, and threatening to cover the pupil. It seldom extends far enough to do this completely, but it may interfere with vision; at any rate, it forms a conspicuous and unsightly deformity, which the patient is anxious to

be rid of. The disease advances not, like a polypus by a continuance of growth at one point, so much as by an extension of the hypertrophic tendency from point to point along the surface of the sclerotic and cornea, so that the mass is, in its whole length, attached to those tissues, and in its whole circumference is continuous with the conjunctiva. It has a defined edge, and the thickened conjunctiva composing it has a tougher and more fibrous structure than naturally belongs to that tunic, the change consisting not simply in an increase of quantity, but in an alteration of quality also. This alteration is especially observable on the cornea, where the areolar and vascular elements of the conjunctiva are in the natural state so delicate as to be with much difficulty demonstrable, even under the microscope.*

Pterygium is occasionally seen on the temporal side of the eye, very rarely above or below. It is most common in adults and elderly persons, being of rare occurrence in children. Not long ago, however, a little boy was brought to the hospital with a pterygium extending for some distance upon the cornea. Under the influence of nitrate of silver, several times applied, the growth gradually disappeared, and, I believe, did not return. It is seldom necessary to excise the mass, and it is not desirable to do so, because the operation is likely to leave an opaque scar upon the surface of the cornea. You will generally find it sufficient to cut through the base of the growth with a narrow-bladed knife, or a pair of scissors. After this has been done the divided edges retreat from one another, and the supply of blood is so far diminished that the mass generally wastes, and does not recover its tendency to increase. The incision should be made pretty freely, so as to include the entire width and depth of the growth, otherwise the vessels above and below will enlarge, and the operation will prove ineffectual.

Very similar in its nature to pterygium is the affection called "chronic hordeolum," which depends upon the enlargement of one or more of the meibomian glands. The glands thus enlarged form red fleshy masses protruding the conjunctiva on the inside of the lid, and rubbing against the eyeball so as to occasion a good deal of irritation and inflammation of the globe. Sometimes they project beyond the margin of the eyelid, presenting an unsightly appearance. When they make their way through the tarsal cartilage externally, they form little smooth lumps beneath the skin, which are very likely to be mistaken for the small cysts so often met with in this situation. A prick with the lancet on the conjunctival surface shows their real nature, for instead of giving vent to a collection of fluid you find that each mass is solid and composed of a soft reddish

substance throughout. They are often associated with, and result from, an indifferent state of health; when that is the case you have hope for a spontaneous cure, after the health shall be re-established by suitable measures. Assistance may be derived from the application of an astringent ointment or lotion, or the nitrate of silver in substance. If these means fail a free incision may be made into the mass, and its structure so opened may be lacerated by the sharp end of a probe or needle. I have several times known a cure thus effected. In one case it was necessary to extirpate the growth with the knife; it was situated near to the inner canthus and caused much trouble by its interference with the punctum lachrymale. The patient got quite well although the duct was necessarily injured in the operation.

We occasionally see little warty growths upon the edges of the eyelids. They have no connection with the meibomian glands, but result from a hypertrophied state of the cuticular papillæ and yield easily to the application of nitrate of silver or nitric acid.

Some of the changes occurring in the interior of synovial membranes may be referred to in illustration of this subject, more particularly that called "lipoma aborescens," of which this specimen is a good example. It is a shoulder-joint; the synovial membrane around the glenoid cavity is covered by numerous little filiform or pear-shaped growths, attached to it by narrow pedicles, with one end hanging loose into the cavity of the joint, like a cluster of small polypi. They are smooth on the surface, and continuous by their pedicles with the synovial membrane; towards their free bulbous extremities they appear to be composed chiefly of fat. Their origin may be traced to a granular condition of the membrane; the granules enlarge, project into the joint, and become pendulous. It may be that these granules consist originally of inflexions of the synovial membrane containing in them more or less of the subjacent tissue, which becomes hypertrophied and forms the receptacle of the fat subsequently deposited. This, however, is not certain. They are generally accompanied by other marks of chronic inflammation, such as an effusion of fluid into the synovial cavity, a thickened contracted state of the capsular ligament, together with thinning, perhaps removal, of the articular cartilages, and, it may be, a polished condition of the exposed bony surfaces. The affection is also preceded and attended by pain, stiffness, a sense of crepitation upon movement, and other symptoms of chronic inflammation. It may result from a blow or fall upon the joint, or, as in this specimen of the elbow, it may have been occasioned by a fracture into the joint, followed by incomplete reunion of the broken portions. The pain is not of that acute starting character which attends ulceration of the cartilages, but is a dull, aching, uneasy sensation.

I have, on a former occasion, mentioned to you my belief that loose cartilages in joints originate in the deposit of a patch of lymph upon the inner surface of the synovial membrane. We may suppose the changes that take place to be as follows:—At first the new product is soft, and has a more or less extensive attach-

* The observation of the disease in question, as well as of the speedy appearance and regular distribution of vessels upon the surface of an inflamed cornea, always appeared to me to afford evidence, almost conclusive, of the presence of vascular and areolar tissue upon the surface of the cornea, beneath its epithelial layer. The question has, however, been recently decided in the affirmative by Professor Galdi, who demonstrates, in the eye of a child two years old, vessels anastomosing in close plexuses around the cornea, and sending minute offsets, which pass beneath the epithelial layer, towards the axis of the tunic, in tolerably regular converging lines.

ment to the membrane on which it rests. Gradually it increases in size, and, undergoing the changes before explained, becomes firmer, cartilaginous, or even osseous in the centre, and at the same time polished on the exterior. While it increases in size and undergoes these changes of structure, it projects more into the cavity of the joint, and its attachment to the synovial membrane is diminished. In this way it becomes pediculated like a polypus. By degrees the pedicle decreases in thickness, and at last gives way or is broken during some of the movements of the joint. You may sometimes see upon the surface of the loose cartilage, in a rough spot or cicatrix-like appearance, the trace of the point at which this connection existed. The mass is now loose in the articular cavity, having no connection by vessels or other tissue with any part of the body. Still it may derive the elements for its nutrition by imbibition from the synovial fluid in which it floats; and there can be little doubt that the growth of the foreign body, as well as the changes in its interior, continue after it has been separated from its point of attachment.

The evidences of an inflammatory origin and of similar changes are stronger in the case of the melon-seed-like bodies occasionally found in bursæ. These bodies are usually preceded and accompanied by symptoms of inflammation, and they are met with in various stages of their progress. In the same bursa you may see some of them attached by a broad surface to the lining membrane, others pediculated or recently separated, and some smoothed down and deprived of all trace of their former connection.

Supposing this view to be correct, the loose cartilages in joints and the melon-seed-like bodies in bursæ are probably of the same nature with the white spots so often found upon the pericardium and the dense white masses of less frequent, though not uncommon, occurrence upon the spleen and liver. They all appear to originate in deposits of lymph, modified according to the particular circumstances in which they are placed. It is true that the attendant inflammatory symptoms are not always, or indeed generally, present; but, inasmuch as these substances consist of that which is one of the ordinary products of inflammation, and inasmuch as they are often accompanied by other evidences of inflammatory disturbance, we cannot err very much in this opinion of their nature. Many other morbid products of the same kind may be mentioned, such as the white plates upon the arachnoid, the cicatrices upon the pleura so repeatedly met with near the apices of the lungs, the adhesion between the opposed pleural and pericardial surfaces, the little masses in the subcutaneous cellular tissue which slowly suppurate and burst or gradually disappear, and the corresponding lymph formations in the substance of the lungs and other internal organs, of which various specimens are continually presenting themselves in the dead room at the Hospital. In all, or nearly all of these, the appearance of the morbid product is the first symptom of the disease; and it is only by comparing them with others of the same class, and watching their progress, that we can form an opinion respecting their real character.

Although we state generally that these substances are of inflammatory nature, there can be no question that many of them, such as loose cartilages and the opaque masses on the spleen, possess a power of growth independent of any accompanying inflammation. In some the first formation may have been due to an inflammatory disturbance, but they go on increasing long after that exciting cause has ceased to exist, and in others there is no trace of its existence either in their incipient or their subsequent stages. We cannot fail to remark the similarity in this respect to the origin and progress of warts, polypi, and the other growths of that nature which we have been discussing.

I have alluded to these lymph-formations for the purpose of explaining to you that it is not the natural tissues only which are the subject of this slowly progressive hypertrophic enlargement or growth, inasmuch as certain morbid products, more or less clearly referable to inflammation, exhibit a similar disposition under corresponding circumstances. To this point we must again revert when we enter upon the subject of "tumours," strictly so called.

It may be remarked, in conclusion, that organs in a state of general enlargement or hypertrophy, are, as might be expected, particularly liable to hypertrophy in a circumscribed form. This femur, for instance, is in the whole length of its shaft, thickened to twice its natural size by inflammation, and there is a distinct and considerable exostosis above its inner condyle. The enlarged thyroid gland is often the seat of cystic formations in some part of it; and the enlarged prostate is particularly likely to be deformed by the projection of certain portions, more hypertrophied than the rest, into the cavity of the bladder.

CASE OF UTERINE POLYPUS

COEXISTING WITH PREGNANCY AND SPONTANEOUS
EXPULSION OF THE TUMOUR.

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THE following case, recently occurring under my observation, will be perused with interest, in consequence of the increased attention which has of late been directed to the study of uterine diseases.

Jemima S—, aged 26, residing in the country, having had one child previously, was on the 20th of March delivered, by a midwife, of a fine female child. The woman who attended her described the case as one of unusual delay, for though the pains were strong and continuous, for some time the head seemed to make no advance. At last the child was born, the placenta being expelled shortly afterwards. She continued to progress favourably until the evening of the 22nd, when she was attacked by rigors, attended with considerable pain immediately above the pubes, and entire cessation of the lochia. On the morning of the 23rd, when I first