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Lectures

ON THE

SURGERY OF CHILDHOOD.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN.

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LECTURE I.

INTRODUCTORY REMARKS; *Plan proposed; Arrangement of Surgical Affections of Children: CONGENITAL MALFORMATIONS; Atresia Oris; Imperforate Anus; Imperforate Vagina; Hare-Lip; Orthopædic Surgery; Congenital Fractures and Dislocations; Congenital Luxation of the Hip; Encephalocele and Meningocele; Tumours of Scalp, with Absorption of Cranial Bones.*

GENTLEMEN,—It is, I assure you, with much diffidence that I appear before you to deliver this lecture. Trusting, however, that your kindness and forbearance, as well as the interest and importance of the subject itself, will extenuate some of my deficiencies, I venture to offer to you the following observations on the *Surgery of Childhood*.

It is but a few weeks since, a gentleman at this Hospital asked me what work I could recommend him to read upon this subject; and it was probably to his surprise, as I confess it had originally been to mine, that he learnt that there was really no special book of the kind published. The number of works in various languages devoted to the medical diseases of children is very great, and includes many of the highest excellence; amongst these, I need scarcely refer you to the admirable *Lectures of Dr. West*; but owing, I suppose, to these works having been written almost exclusively by physicians, the surgical affections have received but scanty notice, if any.

After a long search, indeed, I found in Frank's *Delectus a short Latin treatise by Oehme, De Morbis recens Natorum Chirurgicis*; but any author who applies to this in the hope of pilfering ideas with impunity, will, I believe, be deservedly disappointed.

The distinction, it is true, between medical and surgical affections, in early life, as at all other ages, cannot be accurately drawn. In many cases which are strictly medical, my assistance is occasionally invoked. In croup, for instance, I have been called on to perform tracheotomy; or for the consequences of pleurisy, to puncture the chest; whilst in all my surgical cases I am ever most glad to avail myself of the ready assistance of my colleagues. Without pretending, however, to logical accuracy, there is practically little difficulty in effecting the separation, in assigning to physicians and to surgeons their respective cases.

The plan which I have sketched out in my own mind is, at present, to offer to you some practical remarks, illustrated with cases, on the surgical affections of children generally, with a hope that, at some future period, I may be able to take up those of the genito-urinary organs, and of the other regions in due succession. But, gentlemen, in the lecture-theatre, as in other theatres, the proposed performances are not always conducted to a successful termination. They require, in fact, the concurrence of the audience, as well as the efforts of the performer; and if it is considered hardly regular, on these boards, to express disapprobation as noisily as elsewhere, it may still be demonstrated more quietly, but as effectually, by your non-attendance.

The surgical affections of children may, I think, be conveniently arranged as follows:—

- I. Those CONGENITAL MALFORMATIONS—using the term in a very broad sense, and including arrests of development—which require the attention of the surgeon.

II. The direct or immediate consequences of INJURIES or ACCIDENTS.

III. SURGICAL DISEASES PROPER, which may follow one or other of the previous divisions, or which may arise from other causes.

I.—CONGENITAL MALFORMATIONS.

These are unquestionably special to infancy; and, in the great majority of cases, any surgical treatment which may be applicable is employed at this period of life. With certain exceptions, the malformations which are met with in grown-up people are those which are beyond the reach of our art.

In the good old times, if the malformation reached a certain point, the unhappy subject was christened a "monster", and summarily disposed of, usually by being drowned; and, though Blackstone had pointed out the impropriety of this proceeding, and even laid it down, that "a monster having deformity in any part of its body, yet, if it have human shape, may inherit", the popular impression still remained in many places in favour of what may be termed the heroic treatment. Even as late as 1812, two women were tried at the York Assizes for drowning a child who was born with some malformation of the cranium. There was no attempt at concealment on the part of the prisoners, who did not appear in any way conscious that the act they had committed was either illegal or immoral.

Some malformations require immediate surgical assistance, either to preserve life, or because it can be employed to the best advantage at a very early period. For instance, in certain cases (rare, I confess), in consequence of adhesion of the lips during intrauterine life, the child is born with what is technically called *Atresia Oris*—that is, occlusion of the orifice of the mouth—and, unless a passage to the digestive organs is obtained, nutrition cannot take place and the infant perishes. A still better example—at least, one which is more commonly met with—is, where the other end of the digestive tube is closed, constituting

Imperforate Anus. In this case, as in the previous one, unless an opening be established, life cannot long be sustained; and though the operation not unfrequently fails, or is not even attempted, the results at other times are most favourable. As an illustration, I will detail briefly a successful case of the kind which occurred to me at this Hospital.

CASE. Rebecca Nathan, 23 day sold, was brought to me in the summer of last year, with no opening in the usual situation of the anus, the parts there being firm and solid. There was, however, in the posterior wall of the vagina a fistulous orifice, just large enough to admit of the introduction of a probe, through which some fecal matter exuded. This opening communicated with the rectum, which passed upwards and backwards, being separated from the surface where the anus should have been by soft parts about an inch in thickness. The child was very ill, sick and pining away, straining constantly, and evidently suffering very much from the difficulty in passing the feces. I determined to operate; and, having passed a probe through the fistula into the bowel, as a guide, I made a free incision through the integuments a little in front of the coccyx, and divided the soft parts until I reached the rectum. This was opened freely, and a large gum elastic tube introduced through the wound into the gut, and secured there. There was no great amount of hæmorrhage; the feces came away freely; no bad consequences followed; and the child, who thrived very well, was brought to me from time to time for some months by the mother, who was supplied with a bougie, which she was instructed to pass frequently. When I saw her last, the little patient's general health was much improved, and a pretty large instrument could be introduced without difficulty.

If the anus is imperforate, and there is no fistula to guide us to the bowel—as there was in the case I have related, or in one described by Mr. Dickinson at Rangoon, where the feces were passed through the penis (*Lancet*, 1859, page 534)—the case becomes more difficult, the chances of success are much diminished. In the first place, we ought, of course, to explore

the perineal region; if the closure of the anus depends only on the existence of a thin septum, through which, perhaps, the meconium is visible, or if we find a soft and fluctuating tumour which indicates its presence, it is here undoubtedly that we ought to make our incision; the anus should be reestablished in its natural position.

If, however, all these indications are absent, if there are no means of ascertaining to what extent the bowel is deficient or displaced, we may still divide the soft parts in this situation; but the operation will, in all probability, prove unsuccessful. Two other plans, however, present themselves to the surgeon. He may attempt to open the large intestine in the lumbar region by what has been termed Callisen's operation. Theoretically, this is an advantageous situation, for here the bowel may be punctured without the peritoneum being wounded; and in the adult, when an artificial anus is required in consequence of stricture, this operation has been performed with considerable success. In infants, however, the malformation and displacement are frequently not confined to the rectum, the difficulties become much greater, and, practically, I am not aware of many cases where this operation has been of service.

The other plan is, to open the bowel in the groin by Littre's operation. In a remarkable report, read at the Imperial Academy of Medicine, in January of last year, M. Rochard was able to bring forward five cases which had occurred at Brest, where this operation, performed for congenital imperforation, had proved permanently successful, and in which he could trace their progress for many years. One of these cases I may narrate, for it is in the after-results of our operations that the study of surgery is most deficient. An infant had Littre's operation performed on her in 1813. She is still alive; and very recently M. Rochard had an opportunity of examining her. Her digestion is excellent; the stools solid, passed periodically, and, to a certain degree, under the control of the will. When a motion is about to pass, she experiences a feeling of uneasiness and fulness in the left groin. She then removes the compress and body-bandage, which form the whole apparatus that she wears, and replaces them when the bowels have operated. In the intervals, no fecal matter escapes, but there is a little mucous discharge from the upper bowel. A tumour exists, arising from a prolapse of the lower or anal division of the intestine (this, I may remark, was found in all the cases); under pressure, this tumour diminishes in size, but cannot be entirely reduced; there is no tenderness about it, except when diarrhoea is present. The patient is strong and well formed, able, and indeed obliged, to perform hard work. In another of the cases related, the woman married, and had four children, the pregnancy and delivery being, on each occasion, quite normal.

The objections to Littre's operation have been mainly, that the peritoneum must be wounded, and that the artificial anus, if placed in the groin, is a perpetual source of inconvenience and discomfort. It has also been asserted that it necessarily predisposes to hernia. To the first objection, it is fair to answer, that we do not hesitate to wound the peritoneum in operating for hernia; and to the second, that an artificial anus must always be a source of discomfort; but it is, at any rate, more manageable by the patient if placed in the groin, than if situated in the back. As to the alleged tendency to hernia, it is to be remarked, that in not one of these successful cases had any rupture taken place.

The conclusion at which I have arrived for my own part is, that in the next case of imperforate anus I meet with, if there are no indications of the bowel in the perineum, I shall not hesitate to proceed at once to form an artificial anus in the groin, rather than exhaust the patient by previous ineffectual attempts to discover the end of the large intestine.* In infants it may be remarked, that the sigmoid flexure is very long, and may be directed transversely into the right iliac fossa, bending back from right to left to enter the pelvic cavity. M. Huguier has consequently suggested that the operation should be performed in the right groin. Probably, however, by making the incision rather high up, at the level of, or above the anterior superior spine, the left groin would be preferable, and this appears to have been selected in all M. Rochard's cases.

Imperforate Vagina. An imperforate condition of the vagina is frequently met with, which admits of ready and easy cure. Here the vagina at its orifice is obstructed by the two sides

being closely united by a thin membrane, which presents a very small opening at its upper border, allowing the urine to escape. The membrane is placed well in front of the hymen, from which it is totally distinct. No inconvenience is suffered, and perhaps some years may have elapsed before the condition is noticed. At last it attracts the attention of the mother, who becomes alarmed, and is anxious that something should be done. The treatment is simple; a moderately strong probe may be introduced behind the membrane, through the orifice at its upper part; and being curved downwards, may be made to tear its way out, leaving a line of raw surface on each side of the vagina; these sores may then be coated separately with collodion, to prevent their reuniting, and the case requires no further treatment. The sooner this is done the better; if left to a more advanced age, as has been recommended by a writer of eminence, the union becomes much firmer and more difficult to destroy. Mr. Rees relates a case which had been so left, where the adhesion was a quarter of an inch in thickness, and required a troublesome operation for its removal.

Hare-lip. Another class of malformations would consist of those in which, if an operation is not absolutely required at a very early period of life, it is performed with the greatest prospect of success in respect to after deformity; as an example, I may adduce hare-lip. It has indeed been a question here whether surgical interference had not better be deferred till a later period of life; till dentition has been accomplished, or even till that fabulous period when the child has become so sensible of his deformity as to be ready to concur in its removal; but I quite agree with Mr. Butcher in the opinion he gives, in his very excellent remarks on the treatment of this affection, that the operation can scarcely be performed too soon; by the end of the first week of life certainly, and thence to the termination of the third month. Indeed, when complicated with cleft-palate, the immediate cure of the hare-lip not merely favours a spontaneous closure of the fissure of the palate, but sometimes offers the only chance of preserving the life of the infant, by enabling it to suck. Two such cases occurred to me here; in one, from certain circumstances, no operation was allowed, and the infant perished of inanition; in the other, I operated for the hare-lip, and the child did well, the cleft palate being left to take its course.

Orthopædic Surgery. It is in the child especially, that orthopædic surgery, as it is called, for the relief of muscular contractions and of the deformities consequent upon them, has most frequently to be employed; and though these contractions are by no means invariably congenital, they are so sufficiently often to warrant my now alluding to them. In these cases, the sooner remedial measures are employed, the more readily is the deformity removed. In fact, the earlier the age of the patient, the more easily will the part affected yield to pressure properly applied; and, in most cases, by appropriate mechanical appliances, even without the use of the knife at all, a perfect and a permanent cure can be effected. We may, indeed, take a lesson perhaps from our celestial brethren (in China), with respect to the great power we possess in moulding or manipulating the infant foot; and if they are able to make it assume the peculiar form which is considered fashionable and proper in their females, so may we, with greater sense, by a similar procedure, relieve deformity and restore the natural form.

Congenital Fractures and Dislocations: Congenital Dislocation of the Hip. Before the child is born, even within its mother's womb, it is liable to fractures and to dislocations, and a correct knowledge of these is always advisable, and frequently indispensable to the surgeon. A little girl, for instance, 10 years of age, was brought to me last year, said to be labouring under disease of the hip, for which she had been duly leeches and blistered, painted with iodine, and drenched with cod-liver oil. She had, in truth, congenital luxation of the left hip-joint, an affection not very uncommon, and of which M. Boyer has collected thirty-two cases. This dislocation, which generally takes place upwards, the head of the femur resting on the dorsum ilii, as it did in the case I have alluded to, frequently occurs on both sides at once, but is occasionally met with on one side only. It may not be noticed at the time of birth, but becomes apparent when the pelvis expands, when the child's movements get more active, when he attempts to assume the upright posture and to run alone. The want of proper support of the body on the extremity, the peculiar unsteadiness in standing or walking, the defect in the proper movements of the hip, and the alternate elevation and depression of the head of the femur in the external iliac fossa begin then to be very evident.

This kind of luxation is said, like defective formations in

* Since this lecture was delivered, I have had occasion to perform Littre's operation on a female infant with imperforate anus. Though the case, which presented some interesting peculiarities, terminated fatally at the end of forty-eight hours, I see no reason to modify the opinion given in the text. The sigmoid flexure was reached and opened without difficulty.

general, to be more frequent in the female than in the male; eleven only out of the thirty-two cases mentioned by Boyer, occurring in boys, to twenty-one in girls; the case too I have related, occurred in a female. It occasionally runs in families or may even be hereditary; it has been seen, for instance, in a mother and her daughter, in two sisters, and M. Sédillot mentions a family in which the mother had a double congenital dislocation, the son a similar dislocation on both sides, whilst the daughter had it only on the left side.

Opportunities of dissecting the parts are, of course, not often met with, the affection not being in itself dangerous, whilst the number of cases in which it occurs is limited. According, however, to M. Pravaz, who has written a special treatise on the subject, the head of the femur may remain free upon the external surface of the ilium, having its movements limited only by the resistance of the soft parts, such as the capsular and accessory ligaments with the surrounding muscles; or, on the other hand, it may be fixed in a false joint. The cotyloid cavity, deserted by the femur, may not be completely obliterated, but only deformed, becoming of an oval or triangular shape, and reduced in its dimensions, *it may still, however, preserve a sufficient capacity, if not to enclose the head of the femur, at least to retain it.* The head of the femur is smaller than natural, and somewhat modified in its form. Its neck is shorter and atrophied, both in length and in circumference. The muscles which unite the thigh to the pelvis are relaxed or extended according to the effect produced upon their length by the displacement of the femur; those which are left relaxed or unused, passing into the state of fatty degeneration.

The congenital luxation is not always complete, especially in the first few years of life; afterwards, the constant action of the limb and the shocks which result from the movements in walking, frequently increase the first degree of displacement; the head of the bone is forced higher and higher on the ilium; it remains in its new position for variable periods of time, and leaves there traces, more or less profound, of the pressure it has exercised.

The diagnosis from the results of hip-joint disease is simple. To translate the words of Dupuytren, "the absence of all pain or inflammatory swelling, of any abscess, sinus, or cicatrix; the simultaneous existence, in some cases, of a dislocation on each side; the history; the first appearance of any sign of the defect on the first step taken by the patient; the progressive development of the symptoms in proportion to the increased weight of the body,—all these are so many certain means of distinguishing the two affections, so analogous in their signs, so different in their origin, their nature, and their treatment."

With respect to the treatment, in most cases, at any rate, it can only be palliative. Baths, friction, and all measures calculated to strengthen the parts around, may be employed; whilst mechanical support is given to the limb by means of an appropriate apparatus embracing the pelvis and receiving and retaining the great trochanters. It is possible that in favourable cases, where the affection is recognised at a very early period of life, when the extent of the changes in the parts is proportionately small, especially, perhaps, when the luxation is double, and the pelvis has consequently remained symmetrical, reduction may be accomplished, a permanent cure effected; at least, M. Pravaz relates some cases in which protracted treatment is said to have terminated in a successful result.

Without feeling much confidence in the chance of a cure, I have been led to dwell at some length on this subject, as the treatment employed upon my patient shows that the affection is not universally recognised.

Encephalocele and Spina Bifida. Even where no operative interference is called for, a correct knowledge of the malformations which may occur, and of their site, is often of great consequence to the practitioner, as it may save him from committing great mistakes, from incurring much just blame. I may refer, by way of illustration, to those congenital malformations of the head and spine which have been termed *encephalocele* and *spina bifida*. In the former (congenital *encephalocele*), usually in consequence of intra-uterine hydrocephalus, when the pressure of the fluid interferes with the development of the bones, and at some particular spot arrests it altogether, we find a tumour of varying size and form, containing a certain amount of the substance of the brain, which protrudes through an aperture in the skull. Sometimes this tumour or hernia of the brain is as large as the proper head itself, or even larger. Generally, however, it is much smaller, and presents a more or less defined neck or pedicle, corresponding to the aperture in the skull. The protruded mass of brain is covered by the pericranium and dura mater, which are somewhat intimately

united with each other, and by the other membranes. These coverings, however, are frequently much thinned, and may even give way and burst.

The most common situation in which this protrusion takes place is the occiput, as seen in the cast on the table, as well as in the preparation. Less frequently it is found at the anterior part of the skull, in the fronto-nasal region, or at the front part of the base, protruding into the orbit through the sphenoidal fissure, into the nose through the cribriform plate, or into the pharynx through the sphenoid itself. It has also been found between the occiput and parietal bone, at the top of the head; as well as in the parietal region. Some of these cases were possibly blood tumours or cephalæmatomata, rather than encephaloceles. In the museum of Guy's Hospital is a specimen of encephalocele in the parietal region, the protrusion being in connexion with the lateral ventricle. In a table of ninety-three cases collected by Dr. Houel, sixty-eight occurred in the occipital region, sixteen in the fronto-nasal, and nine at the base of the skull.

A very complete and admirable account of this affection was given a year or two back by my friend Mr. Prescott Hewett, in his lectures at the College of Surgeons, which I hope will ere long be published; but my principal object in alluding to them is, to warn you to be upon your guard in meddling surgically with such congenital tumours in the situations I have mentioned, or else you may be disagreeably surprised by finding that you are unintentionally extirpating a part of your patient's brains—a mistake which very able surgeons confess to having committed. M. Lallemand, for instance, relates that he was asked to see a young girl with a tumour situated in the occipital region. Taking it for a wen, he began to remove it; but he soon found out that he had to do with the dura mater, which was protruding through a hole in the occipital bone. The child died, of course, a few days afterwards, when the tumour was found to contain an elongated portion of the cerebellum. In the third volume of the *Clinique des Hôpitaux des Enfants*, you will find related a case of encephalocele in the forehead in a child eight years of age (said, however, to be probably not congenital), which was mistaken at first for an abscess, and punctured; this was followed by head symptoms, when the case was pronounced to be fungus of the dura mater. More incisions were made, and the surgeon tried to cut off the whole tumour; but the operation could not be completed, on account of the hæmorrhage, and the child died. On examination, the tumour was found to be composed of the substance of the brain itself protruding through the dura mater, which was perforated (it had been, we may recollect, extensively wounded), and corresponding to the loss of substance of the bony case of the skull. Dr. Zdzieniski, too, relates an interesting case of this kind occurring in the nasal region, where the *écraseur* was applied in 1857, the affection being mistaken for a vascular tumour. The patient, who was between eleven and twelve years of age, of course died. (*Encephaloceles Congenitæ Casus Rarior.* Auctor, Theophilus Zdzieniski. 1857.)

Meningocele. Occasionally we meet with analogous protrusions through the skull, consisting, apparently, only of the membranes, forming a pouch containing cerebral fluid, but in which no actual brain-substance has been made out. These have received the name of *meningoceles*. It is possible, however, that even in these cases a portion of the brain really was protruded, but so distended by effusion into its interior, forming so thin a shell of cerebral substance, as to have given way, and rendered its presence difficult to demonstrate, except on careful dissection. Such appears to have been the case in the interesting preparation now on the table. It occurred in an infant I was requested to see before I became connected with this hospital. The tumour, which was congenital and placed at the back of the head, was originally very much larger than you see it now, in consequence of the soft coverings, which at birth were very thin and transparent over a considerable extent, having given way soon afterwards, and allowed the discharge of a turbid fluid, by which the swelling was much diminished. The subsequent immersion in spirit, too, has tended to contract it still further. The child died with convulsions, at the age of about three weeks, when I was enabled to secure the entire head.

The opening by which the tumour communicates with the interior of the skull, and which is about large enough to admit the end of the little finger, is placed to the right side of the central line at the lower and back part of the occipital bone. It is not situated, as has been sometimes stated, at the junction of the four pieces of which the back part of the occiput is said in books to be originally formed, but nearly an

inch below it, between the occipital and condyloid portions of the bone, the circumference of the opening not being entirely osseous, but at its lowest part consisting, for a small extent, only of membrane, which extends to the foramen magnum, from which the hernial aperture is distant about three-quarters of an inch. Through this opening the dura mater can be plainly seen passing, forming the constricted neck of the hernial sac.

Inside the skull, extensive hydrocephalus has been present; the lateral ventricles have been enormously distended with fluid, the brain-substance forming only a thin shell investing the cavities. The cerebrum, however, has no connexion with the tumour, from which it is separated by the tentorium, which appears to have been forced upwards and thinned. On raising this, the cerebellum is seen to have been considerably more distended with fluid than the cerebrum, its nervous matter being hardly thicker than foreign note-paper, but still presenting a laminated appearance, by which it can be recognised. There was no fluid to speak of in the cavity of the arachnoid, or between it and the pia mater; the thin walls of the cerebellum, with its pia mater and visceral arachnoid, being in pretty close apposition with the dura mater and parietal arachnoid, but easily raised or separated from them, except at the neck of the sac, with which they are evidently connected, and into which some portion of the cerebellum can still be traced.

The practical point for us to bear in mind is, to recognise these tumours, to be aware of their nature, in order that we may avoid meddling with them unnecessarily, especially as their existence is not necessarily in all cases a cause of death. M. Lallemand, for instance, found a hernia of the cerebellum in an aged woman at Salpêtrière; and in Dr. Zdzienski's case, already quoted, the patient at the time of operation was about twelve years of age, and in good health. The leading diagnostic marks are—1. The seat of the congenital swelling; 2. Its *pediculated* character; and 3. Its *colour*, which varies according to the position, being natural in the occipital region, where it is covered by the hairy scalp; whilst in front, where the skin is thinner, it may present a reddish or violet hue, giving it a great resemblance to an *erectile tumour*. It is generally soft and fluctuating; usually, but not invariably, reducible to a certain extent; whilst pulsatory movements synchronous with the pulse, as well as with the respiration, are sometimes present, but are very often absent.

The treatment must be principally negative. You must not *excise* the tumour, not yet *incise* it. Moderate pressure with steady support will generally be of service. If there is great tension, you may perhaps evacuate some of the fluid by acupuncture; but injections, whether of iodine or of other substances, are, on the whole, more likely to do harm than good.

Tumours of the Scalp, with Absorption of the Cranial Bones. I may be allowed here to introduce a few words respecting another form of tumour of the scalp, which may also communicate with the interior of the skull, but where the bone is perforated in the opposite direction, viz., from without inwards, and which is met with occasionally in children in whom the bone is soft and absorption active. In the museum of the College of Surgeons is a frontal bone with a largish aperture in its middle line. It was sent from abroad to Mr. Prescott Hewett (by whom it was presented to the museum), with, I believe, the following history. The patient had a sebaceous encysted tumour of the forehead. This was removed; but, during the operation, it was found that the frontal bone beneath the tumour had been absorbed, and the dura mater was exposed and injured. Head symptoms followed, and the patient, I presume, died, for the frontal bone is in Lincoln's Inn Fields. Curiously enough, two cases of the same kind came under my care at this hospital within a few months of one another. In these instances, in removing the sebaceous encysted tumour from the middle line of the forehead, I found it placed beneath the occipito-frontalis, and lodged in a well marked cup-like depression in the bone, to the periosteum of which it was adherent, especially at the bottom of the cup, where the union was very firm. On dissecting out the tumours very carefully, I discovered at the lowest part of the depression a small aperture in, or deficiency of, the bone, where the pericranium appeared to be blended with the dura mater beneath.

I have no preparation to show, because in both instances the patient recovered, though a well marked depression was left at the seat of the operation; but I mention the cases to impress upon you the propriety of being careful in excising cysts in this situation in very early life, as you may find the bone defi-

cient, the dura mater unprotected, and a hasty stroke of the knife might wound the membranes, and cause the death of the patient.

Though I have no preparation with *complete* perforation, here is a portion of the os frontis showing a distinct depression or fossa situated just above the orbital arch, towards its outer extremity, in which such a tumour, about the size of a small bean, and congenital in this instance, was placed. The infant dying from other causes, I was able, through the kindness of Dr. Jenner, to examine the parts *in situ*. The tumour was placed beneath the occipito-frontalis, from which it was quite distinct, appearing, when the scalp was stripped off, as a small projection from the bone, surrounded by, or imbedded in, the pericranium. The fossa or depression in which it is lodged is well marked; but the bone in this situation is too thick to admit of any chance of its whole substance being absorbed, or of the dura mater being exposed.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

WESTMINSTER HOSPITAL.

EXTENSIVE FRACTURE OF THE SKULL, WITH LARGE EFFUSION OF BLOOD BETWEEN THE DURA MATER AND BONE OVER THE RIGHT CEREBRAL HEMISPHERE.

Under the care of C. HOLTHOUSE, Esq.

J. L., aged 53, a stout bargeman, was admitted at five o'clock in the morning of November 16th, having fallen down a flight of ten stairs while intoxicated, and then down another flight, striking his head violently against the wall as he fell. This happened at seven o'clock the preceding evening; and he was seen by Mr. Painter's assistant, Mr. Mowatt, an hour after the accident. He was then comatose, and breathing stertorously; and his pupils were contracted. Mr. Mowatt, finding he had been drinking, thought the symptoms might be due to intoxication; but saw him again between four and five in the morning, and finding no amendment, he sent him into the hospital.

The patient was seen by Mr. Holthouse at 10 A.M., when the following symptoms were observed. There was a large ecchymosis involving the right upper eyelid and temple, but none beneath the conjunctiva. There was no wound of the scalp, and no depression or evidence of fracture in any part of the skull. The countenance was dusky. There was no visible distortion of the features. The pupils were somewhat contracted, and immovable; the eyeballs motionless; and winking did not take place on touching the cornea or the eyelashes. The breathing was stertorous; and the pulse was but little affected, and not wanting in power. He vomited once while being examined. There was general paralysis; but it was more complete on the left side of the body, as, on tickling the sole of the left foot, not the slightest movements were produced; while, on tickling the right, the ankle was flexed and the toes extended. These symptoms did not vary materially till he died, at eleven o'clock the following night (the 17th).

TREATMENT. This consisted in removing the hair from the side of the head, and the application of leeches in the first instance; and afterwards of ice to the head. Sinapisms and hot-water bottles were also applied to the soles of the feet; six grains of calomel were placed on the tongue; and a turpentine enema administered. All these remedies, however, failed to produce any appreciable change in the patient's condition.

EXAMINATION OF THE BODY, twenty-four hours after death. Body well nourished; rigor mortis persistent; no marks of decomposition. On separating the scalp from the calvarium, a considerable extravasation of blood occupied the whole of the right side of the head, extending as far forwards as the upper eyelid. On removing the upper half of the skull, it was found unusually adherent to the dura mater; and five ounces and a half of firmly coagulated blood was situated between the bone and dura mater, which was pressed in, and had formed a cavity over the right hemisphere of the brain. The blood did not extend so far forwards internally as it did beneath the scalp, and had not reached any part of the base of the skull. A wide fissure or fracture was found extending from the posterior and