

- (d). Bronchitis, or œdema of the upper lobe of one or both lungs.
- (e). Nervous diseases, such as paraplegia from myelitis, tubercular meningitis, or in a debilitated state of the system, generally associated with hysteria or hypochondriasis.
- (f). Cases where, as from extreme serous distension of the cavity of the peritoneum, the diaphragm is subjected to great pressure upwards.
- (g). Trivial affections, such as diarrhœa, dyspepsia, &c., especially where there exists a tendency to the paralytic thorax. Here it is usually met with in young and imperfectly-nourished adults, and occurs more frequently in females than in males.

3. That from the various conditions under which the murmur occurs it cannot be regarded as a sign of any special disease. It is in most cases of temporary duration, and it may occasionally be met with in a state of apparent health.

4. That its characters closely simulate those of a murmur of attrition—hence it has, I believe, in many instances been erroneously regarded as a sign of localised pericarditis.

ART. VI.—*Remarks on Two Cases of Strangulated Hernia.*^a By THOMAS EVELYN LITTLE, M.D.; Surgeon to Sir Patrick Dun's Hospital.

THERE is, perhaps, no class of surgical cases which is described as more typical in our ordinary text-books—whether as regards clinical history, pathological anatomy, or operative treatment—than that of strangulated herniæ; and yet, I think (and in this I am sure I shall be borne out by the opinions of all practical surgeons, as well as by the perusal of recorded cases) there is scarcely any class which, in the individual instances met with, seldomer conforms to the regular text-book type. In fact, almost every case seems to present to a certain extent a study in itself, and this observation is perhaps more true of some of the details met with in connexion with the operation (where resorted to) than of any other particular.

It is for the reason that the two following cases presented in their course certain special peculiarities, of not common occurrence,

^a Communicated to the Dublin Biological Club, May 30, 1881.

that I consider them deserving of a brief record, and of a few remarks.

The first was a case of strangulated congenital hernia in a man ; the second one of strangulated femoral hernia in a woman.

CASE I.—*Inguinal Hernia, Strangulated; Congenital, with undescended and Atrophied Testis ; Rupture of the Sac.*—W. D., aged forty-two, a strong and healthy labourer, unmarried, was brought to Sir Patrick Dun's Hospital on the morning of Monday, December 20th, 1880, with a strangulated inguinal hernia of the left side. I saw the patient some short time after his admission. In the meantime the taxis had been tried without success, and he had had a hot bath and a full draught of laudanum. When I saw him the tumour was of about the size of a large fist. It was, I observed, of more than ordinarily globular shape, yet still having the *contour* of a couple of folds of intestine faintly indicated on the surface. It was excessively tense, and very painful and tender. It gave a dull tympanitic sound on percussion, and was quite devoid of any impulse on coughing. There was no general abdominal tension or tenderness. I was told that the tumour had increased somewhat in size since the man's admission.

I attempted the reduction of the protrusion by taxis while the patient was in the warm bath, and subsequently under the full influence of ether, but without making the least impression upon it. Dr. Bennett, who saw the patient with me immediately afterwards, also tried the taxis, but without success. We agreed to meet about the case again in three hours. I had him given another full opiate, and ordered an ice-bag to be applied meanwhile to the tumour.

In the meantime we collected the following meagre particulars as to the previous history of the case :—[The man was, as we soon afterwards learned, of singularly apathetic temperament, and feeble intellectual powers, so that the difficulties of obtaining any very definite account were unusually great.] The patient had had an old, but generally easily reducible, rupture for "as long as he could remember," although he could not positively say whether he was born with it or no; but he thought not. He had for years worn a truss. On one or two occasions he had great difficulty in its reduction; and about eighteen months ago, being unable himself to accomplish this, he was obliged to apply to one of our hospitals, where the tumour was reduced without operation. On the present occasion the tumour became irreducible at half-past seven o'clock of the morning of the day on which he was admitted to hospital while at his work, on going out to which, he said, he felt quite well.

At three o'clock, p.m., Drs. Bennett and Macalister met me in consultation about the case. In the interval the tumour had undergone a marked change, and the man had suffered much from extreme pain of

the abdomen in its neighbourhood, and had vomited frequently with great distress to himself; the vomited matter was, however, not in the least stercoraceous. The tumour had increased with surprising rapidity; it was now fully three times its original size, and was still more tense than before. The most marked change, however, about it was that it had now become extensively—almost universally—livid, and in parts almost black on the surface; presenting, in fact, at first sight all the aspect of threatening gangrene of the whole mass.

Under these circumstances it was, of course, determined to proceed immediately with the operation, without any further attempt of taxis.

In the course of the operation the facts which were noteworthy were these:—After cutting through the skin and superficial fascial structures, the tissues of the scrotum, especially at its inferior part, were found to be considerably œdematous, infiltrated with very darkly-coloured serum. I had previously, for sufficiently obvious reasons, determined upon in any case opening the sac before dividing the constriction; but, indeed, it was found that to determine in this case when the sac was reached, and to discriminate that important structure from the mass of surrounding infiltrated tissues, was no easy matter; and for the reason, as soon became apparent, that we had to do with a case in which the sac had become ruptured. It was found that portions of this structure could be stripped in shreds from off the underlying folds of intestine, to which these shreds had even already become lightly adherent by a very delicate layer of recent lymph. When the hernial contents were fully exposed they were found to consist of several coiled loops of small intestine, without any omentum, in the midst of which, and at a short distance below the place of constriction, was observed a small whitish glistening body, which was readily identified as a very small undescended and atrophied testicle. The intestine, though intensely congested, was nowhere apparently gangrenous, nor, on its being exposed, was there the least trace of the characteristic gangrenous odour. On division of the constriction the parts were reduced without trouble. The extent of gut protruded in this case was, I conceive, exceptionally great, especially as the case—according to the patient's representations—had always been one of a small-sized rupture. I am sure that, when reduced during operation, the length of bowel constricted measured considerably over three feet.

This case, during operation and in the subsequent dressings, was conducted under strictly antiseptic practices.

I need not dwell on the progress or after-history of this case. The patient made an uninterruptedly good and rapid recovery. The wound healed throughout by first intention. The bowels were naturally moved on the fourth day after operation, and remained regular afterwards.

He was discharged on March 5th, 1881, wearing a L'Estrange's truss;

and has, I have since heard, been engaged as usual at his ordinary labour.

It was observed by the man himself that, after the operation, the testicle now lay at a level considerably lower than before. It was now situated well below the external inguinal ring, whereas the patient assured me that previously its site was in the inguinal canal, above Poupart's ligament. This change of position, however, really proved rather a fortunate circumstance for him in connexion with his future wearing of a truss, the pad of which now fitted him well and comfortably above the testis and over the internal inguinal ring, which, without some special arrangement, an ordinary truss could not have been made to do, as the testicle originally lay.

CASE II.—*Femoral Hernia ; Irreducible ; Strangulated ; Adhesion of the Sac.*—M. T., aged fifty-two, a widow, who had never had children, and an active and apparently healthy woman. The only ill-health she had ever complained of was what she calls occasional "bilious attacks," with frequent sick stomach and vomiting. I mention the vomiting, as it may possibly account for the rupture in her case, of any cause of which she can give no otherwise definite account; especially as she describes this symptom as having lasted for some years, and as often of great severity. Moreover, she told that she had had a more than usually severe attack some few days before admission to hospital.

She was admitted to Sir Patrick Dun's Hospital on the morning of January 21, 1881, suffering from a strangulated femoral hernia of the left side.

The history we could gather of the case amounted to this:—She first noticed, she says, the tumour about six or seven months ago. She declares that it came on in a gradual way, and that, although she had observed slight differences in its size at different times, and according to differences of attitude, it had since its appearance never at any time completely disappeared, nor was it ever, to her observation, capable of total return into the abdomen. She had never worn a truss, as indeed she had never known or suspected the nature of the affection until the occurrence of the strangulation on the present occasion.

On admission the tumour was of about the apparent size of a small orange, was situated quite below Poupart's ligament, and was of irregularly globular shape. The integuments over it were perfectly natural, and superficially movable; but, beneath these the tumour could be felt to be extremely hard, fixed, and unimpressionable. It had no impulse on coughing. As to its nature, as a strangulated femoral hernia, there could be no question, and there was no difficulty in the diagnosis. The ordinary symptoms of complete strangulation were, though sufficiently characteristic, hardly yet, however, fully developed. She had vomited

twice since admission, the vomited matters consisting chiefly of whatever food or drinks she had lately taken, tinged with bile, but with no trace of stercor. Her bowels had not been moved for two days—that is, on the morning of the third day before her admission she had had a motion; but, as her bowels were habitually occasionally constipated, she did not make much account of this. The taxis, tried patiently for some time, failed to make the least impression. An injection, with O’Beirne’s long tube, was given, but brought away nothing but the returned fluid and a few very small scybala. Taxis was again tried, without success. The symptoms presenting no urgency, it was determined to leave her for some hours’ rest, a full opiate having been meanwhile administered.

Drs. Bennett and Macalister met me by appointment in the evening, when I had determined to proceed immediately with operation, in case we still failed in reducing the tumour by taxis on the administration of ether. On our return there was no perceptible change in the tumour, except that it seemed, perhaps, slightly more hard and tense than before, but not appreciably increased in size. She had vomited several times since, and could make no attempt to keep anything taken internally on the stomach. The vomited matter now, too, presented distinctly the characters of the contents of the upper bowel, but had *not* any distinct stercoraceous odour. She had otherwise held up well; pulse quiet and soft; no abdominal tenderness; and aspect good.

After getting the patient fully under the influence of ether, and seeing that her muscular system was, as far as possible, completely relaxed, a fair trial of taxis was made, but without producing the least change. I then proceeded with the operation. After having made the more superficial incisions, and having divided the several layers of fasciæ down to the sac, we immediately saw that the protrusion consisted of a small mass of omentum above and a couple of small loops of lesser intestine below. I had proposed to endeavour to divide the stricture without opening the sac; but after having, as I believe, done so, I found the reduction of the mass into the abdomen quite impracticable. The reason of this failure was soon apparent. On now going on with the intention of opening the sac an unexpected difficulty arose. Proceeding with the greatest caution, we found that I could not reach or open into any sac whatever, in the ordinary sense of a sac. There was, that is to say, no cavity containing serous fluid between the overlying structures and the hernial contents. In fact, the cavity of the peritoneal sac had become obliterated by comparatively old and apparently very universal adhesions of its outer layer to these contents. Moreover, the omentum which was now found lying, as usual, like a sort of cap, over the upper and anterior parts of the intestinal portion of the protrusion was itself firmly adherent to the latter (the gut)—so adherent that their separation or dissection from one another would have been a matter of considerable

risk to the safety of the gut. Having, as far as was safe or practicable under the circumstances, cleared and exposed the mass of omentum and intestine in the hernia, and on then introducing the probe-pointed hernia knife between the protrusion and the remaining constriction for the purpose of its division, we now observed for the first time the escape of a very small quantity of dark-coloured serum. It is clear from this that the sac had become adherent throughout over the whole extent of the protrusion, except immediately at the upper part of the neck. On this division no further trouble in the reduction was experienced. This operation, also, was conducted under the antiseptic spray; and the case was afterwards on every occasion dressed with strict antiseptic precautions.

In the after-course of this case there was only one occurrence which deserves notice, or which at all complicated the progress to the complete recovery eventually made. The wound did not heal by first intention as in Case I., except at its lower parts to some extent, and for some time (for about three weeks, viz., from Jan. 31st to Feb. 23rd) the wound was kept open by the sloughing of some of the fascial structures, and probably some remaining shreds of the sac, in the situation of the operation. This was, however, unaccompanied with any constitutional disturbance of account, the temperature never reaching during all the time a higher point than 99.6° , and after the coming away of all small sloughs the wound healed completely and rapidly. The bowels were moved on the fifth day, but not until after the administration of a mild purgative.

The patient was discharged on March 29th, 1881, and is now going about quite well.

Remarks.—I may add a few additional remarks, suggested by consideration of the special peculiarities of the cases just detailed.

In both instances the chief point of interest—as it appears to me—attaches to the conditions of the hernial sac here met with. We have, that is to say, in these cases examples of two of the varieties of (so-called) *pathological* absence, or deficiency of the sac; as distinguished from varieties of its *physiological* absence, such as are explainable by normal anatomical arrangements (*e. g.*, as in herniæ of the cæcum, parts of colon, bladder, &c.). In the first of the cases we have an instance of its absence as a sac, at least in the ordinary and practical acceptation of the term, in consequence of its rupture; in the second, we have an absence, in a similar sense, from adhesion and consequent pathological obliteration of the cavity. Both of these pathological complications—and more especially the former—are, I believe, rare; and

their occurrence in the two cases given is sufficiently noteworthy to render them deserving of record.

These cases, too, illustrate, in some points at least, some of the practical difficulties during operation which such conditions of the sac may give rise to. In both there was an excusable difficulty met with in determining when we had *arrived at*, and when we had *opened into*, the sac—two stages of such recognised cardinal importance in the mechanism of the operation; and that for the efficient reason that no sac, in the usual practical interpretation, was there.

In the clinical history of Case I. the enormous and exceptionally rapid enlargement, and the equally rapid congestion and lividity of the surface, of the scrotal tumour, as well as the œdematous condition of the tissues of the scrotum are, of course, connected with, and easily explainable by, the rupture of the sac. Another cause, however, may be given for this extreme rapidity in the development of the local signs, arising from the nature of the hernia—viz., as one of the congenital variety. Again, in speaking of the characters of the tumour in this case, I alluded to the unusually spherical shape it presented. Now, these two peculiarities—this distinctive shape, and the unusually rapid advance of the symptoms of strangulation—are recognised as especial characteristics of this congenital form of the disease; and the observation, it will be noticed, is borne out in my case.^a A practical indication, worth bearing in mind, in connexion with cases of this (*i.e.*, the congenital) kind, is that, inasmuch as in such cases we may with certainty infer the anatomical relations of the neck of the sac to be those of the oblique variety of descent, our incision of the stricture may be most safely made upwards and outwards—the epigastric artery lying to the inside.

In connexion with the clinical history of Case II. there is one point which, I think, interestingly falls in with, and is consistent with, our observation during operation of the obliteration of the sac by old-standing adhesions. I mean the fact—mentioned by the patient—that from its first, and apparently rather gradual, appearance the tumour had never returned into the abdomen, but had remained, from the first, fixed in its original situation. In fact, the hernia was irreducible.

^a For another case, illustrating these remarks, and in some particulars resembling the one I have reported, see Proc. Path. Soc. Dub. Vol. I., p. 251. Case by Mr. Adams.

It has been often observed that abnormal adhesions in hernia are more frequent in cases where the omentum constitutes the prolapsed part; and, in this case, the omentum—which I have already mentioned as forming part of the hernial contents—invested the intestinal portion of the hernia to a considerable extent, and was, undoubtedly, mainly concerned in the adhesions which existed. It may be noticed, as perhaps somewhat special in this case, that the adhesions seemed to be confined to the body of the tumour, and not to involve the region of the neck, as the details of the operation above given go to show.

The peritoneal and subperitoneal tissues at the neck were, however, evidently much thickened and indurated. The prevalence of indurations of this kind—particularly in more or less chronic and especially irreducible herniæ—which form, I believe, a more frequent and important element in the causation of the strangulation than is generally recognised, constitutes an objection to the practicability of the operation “without opening the sac,” which has been somewhat overlooked. I mention this more particularly as some authorities consider that Petit’s operation is more especially indicated in cases of irreducible herniæ. This may be so, as a general rule, but does not certainly hold in cases where an element in the difficulty of reduction is the induration in the situation I have alluded to. It undoubtedly presented an insuperable difficulty in my case. In fact, as long as, in considering the constricting agents, we take account of merely the normal anatomical structures related to the opening through which the protrusion takes place, such an operation may be available; but when the stricture is formed of a pathological thickening of some of the actual structures which compose the neck of the sac itself, it is evident that the sac must be opened.

I cannot conclude without noticing, incidentally, the important indications both these cases afford—*quantum valeant*—of the value of the rigid carrying out of the antiseptic system of dressing, even in the case of apparently most unfavourable wounds, such as we had to deal with here; and such cases as the above involve, we should remember, as severe a test as the antiseptic practice could perhaps be conceivably subjected to. I can hardly help thinking that, in the days of ante-antiseptic surgery we dared scarcely have hoped for such a result as occurred in Case I.—the healing by first intention of an extensive, though necessary, wound, exposing to the air an enormous area of subcutaneous structures,

already black from intensity of congestion, and infiltrated with sanious serum. Again, in Case II., perhaps still more remarkably, although a certain amount of sloughing of soft parts did take place (as the necessary result, probably, of the primary disturbance of parts during the operation), as I mentioned in detailing the case, these effects remained distinctly localised to the area of the original damage, and were quite unaccompanied with any constitutional sympathy of the least consequence.

ART. VI.—*The Wisdom Teeth and Deafness.* By ROBERT T. COOPER, M.D. (Dubl.).

THAT various forms of otitis are a frequent accompaniment of primary and secondary dentition is a fact not to be disputed, but that a most insidious and intractable form of chronic otitis with its accompanying deafness often owes its origin to a tardy or otherwise abnormal eruption of the wisdom teeth is a matter not so easily recognisable, and about which our text-books are unaccountably silent.

My attention has been directed to this matter for some years, and to judge by the number of cases to be met with this mode of causation of chronic dysecoia is by no means uncommon.

It requires obviously a little patience in investigating the history of our cases before we can ascertain for certain whether this mode of origin is distinctly traceable or not; that the wisdom teeth in process of eruption are a frequent concomitant of severe and intractable deafness is obvious enough; that they constitute the sole exciting cause of the deafness is another question, and one more difficult to demonstrate.

That they are very often the unsuspected cause of deafness I have been led to infer—firstly, from the intimate sympathy existing between the teeth and the ears, and the consequent very obvious prejudicial effect of infantile dentition upon these organs; and, secondly, from observing the number of cases of deafness met with that date their initiation from that period of life at which these teeth appear.

Such cases as the following are not at all uncommon, and the dental origin would certainly be unsuspected without special inquiry:—

CASE I.—The Rev. C. H. B., aged fifty, consulted me, June, 1881, for deafness, which has existed, he says, for some twenty years. He cannot