ON
INGUINAL TUMOUR
ASSOCIATED WITH
SYMPTOMS OF STRANGULATED HERNIA
AND ABSENCE OF
THE TESTICLE ON THE AFFECTED SIDE.

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It occasionally happens, but by no means frequently, that a case is presented to the notice of the surgeon which exhibits a series of phenomena, of which the following outline may be regarded as generally a typical description.

A man who has been more or less subject to the occurrence of some fulness or tumour in one of his groins, right or left, finds it, rather suddenly perhaps, increased in size, or, at all events, becoming extremely painful; and this, probably, immediately after making some physical exertion, often, but not necessarily, of a laborious character. Notwithstanding the rest which he is compelled to take, the original pain increases, he becomes sick, the bowels do not act, or but slightly, the tumour becomes tender or perhaps appreciably hotter than the surrounding parts, the belly is painful on pressure, or it may be more or less tumid, or even tympanitic.

On examining the patient, but one testicle is found in the

scrotum, and this on the side opposite to that on which the tumour exists. He states that this is, and always has been, his natural condition; and he may, perhaps, add that for many years, or for as long as he can recollect, he has, in the groin now affected, been subject to occasional enlargement, which has hitherto disappeared either on his lying down or on making pressure with his hand upon it; and it may also have been painful at times, relief having, however, been always afforded on the subsidence of the swelling.

Among the several circumstances which have been enumerated here, there is but one the existence of which would render it at all doubtful that the patient is suffering from a strangulated inguinal hernia. The history and symptoms, with that single exception, alike point unmistakably to the presence of this lesion. But that very circumstance—viz., the absence of the testicle from the scrotum on the affected side—is one of extreme importance. I have seen it overlooked altogether, so exclusively has the attention of the surgeon been applied to the tumour, and the taxis and the bath have both been sedulously employed before the significant fact has been discovered. Nevertheless, it alone may account for every one of the phenomena described, on an hypothesis widely differing from that of intestinal obstruction. Where congenital retention of the testicle within the inguinal canal exists, the same physical exertions which give rise to hernia and strangulation of the intestine, may occasion bruising and inflammation of the gland within its narrow limits. Such a condition of it will, and does, produce tumour, pain, tenderness, tension of the abdominal parietes, and vomiting. These, if associated with a degree of constipation, a state of things by no means unlikely to be found coexisting with the general disturbance of the system occasioned by orchitis in this form, will produce a *tout ensemble* very closely simulating, or, indeed, identical with that of strangulated hernia.

I have recently had a case under my care at the Marylebone Infirmary, which appears to be a useful illustration of the importance of an accurate diagnosis in the perplexing

conditions described, and, perhaps, to contribute in some slight degree to the means of forming it, more especially as our surgical literature throws very little light upon the subject, and affords but very slender assistance to the practitioner who may seek it there when in need. On these grounds I have ventured to offer the subject for the consideration of the society, in the hope that the practice of those whose experience of hernia has been considerable may be elicited in relation to it.

J. M—, æt. 55, a stout and well-formed man, was admitted to the Marylebone Infirmary on Thursday, September 14th, 1854, at 11 p.m., with symptoms indicating the existence of strangulated hernia, and a tumour in the right groin. The resident-surgeon ordered him a bath, and employed the taxis for some time. His efforts being unsuccessful, he summoned me to the case at 5 a.m. on the following morning, when I saw the patient for the first time. I then learned that "for many years" he had been subject to a swelling in the right groin, which always disappeared when he lay on his side or made pressure on it with his hands. Sometimes it had existed for two hours at a time, never more, and then it was always painful. He had never worn a truss, but had contrived a bandage for it himself.

On Wednesday evening, the 13th, during a walk, he felt the tumour coming down in his groin; and on reaching home he attempted to relieve himself of it in the usual way, but unsuccessfully. Late in the evening, vomiting came on, and the pain in the part was severe; the bowels had been opened in the course of the day. Early on Thursday morning he took two aperient pills and a dose of castor oil of his own accord, and afterwards some salts and senna. The vomiting continuing, and no action of the bowels having taken place, he sent in the evening to the infirmary for medical aid, and was admitted about 11 o'clock at night.

His condition, when I saw him early in the morning, was as follows: He lay on his left side, moaning and rubbing his belly, where he complained of severe pain. Abdomen a little distended, tender on pressure. Frequent vomiting of

a brownish, but almost inodorous fluid. A tumour, about the size of a goose's egg, but somewhat flatter, exists in the right groin, altogether above Poupart's ligament, slightly unequal in consistence, but for the most part rather elastic, certainly not solid or firm; the sides and lower border are defined; apparently a little moveable; no impulse whatever on coughing; complains of much pain on handling it; no appreciable elevation of temperature in the tumour. Observing that the scrotum was empty on this side, I learned that he had never to his knowledge had more than one testicle. Countenance anxious. Pulse quick and weak. Tongue coated; thirsty. As many hours had not elapsed since the aperients were taken, I ordered an enema of castor oil and turpentine to be given immediately. Two hours after, no action having resulted, I decided on operating without delay. My friend, Mr. Erichsen, at my request, kindly gave me the benefit of his opinion, and concurred in the propriety of the step. Having exposed what was evidently a hernial sac, I thought it desirable to ascertain its contents, and found two loops of small intestine, of a dark chocolate colour, which turned upwards over the tendon of the external oblique, much as a femoral hernia is apt to do. Beneath them, at the lower angle of the opening, and just opposite to the external abdominal ring, lay an atrophied testicle and cord, the former being free and moveable, the latter adhering to the posterior aspect of the inguinal canal, at which point the sac or tunica vaginalis abruptly ceased. The whole of the passage was narrow, its sides were exceedingly tense, and required to be rather freely nicked before the gut could be set free. This was then examined and returned; the testicle was left lying in its place, and the wound closed in the usual manner. Immediately afterwards, and during the following day, the patient expressed himself as greatly relieved. He took liquid nourishment well; and a dose or two of opium, to prevent the undue action of the purgatives administered before the operation. On the third day his bowels acted copiously and naturally. Abdominal tenderness came on, however, and some delirium.

Next day the latter increased, and the patient became lethargic, and gradually sank on the fifth day after the operation.

Post-mortem, twelve hours after death.—Injection of intestinal and parietal peritoneum not extensive, with a few ounces of pus-like fluid in the cavity of the abdomen. The loop of the intestine, ilium, which had been contained in the hernial sac, is seen lying free across the lower part of the belly; it is dark reddish-brown in colour, the inflamed portion being limited by two narrow crescentic marks of sloughing tissue, evidently in the lines of the principal constriction at the neck of the loop; there was no perforation. The testicle occupied the position, already described, at the bottom of a pouch of peritoneum, which extended downwards as low as the external ring, but no lower, thus limiting the descent of the protruded intestine and causing it to be forced upwards in the manner described. There was no adhesion or connection of any kind between the testicle and the small intestine or omentum, as has sometimes, and perhaps not unfrequently, been observed with this form of congenital aberration in the descent of the gland, and which has been held, in some measure, to account for it.

In most of the cases with which the records of surgery furnish us, in which inguinal tumour with symptoms of strangulation has been accompanied by absence of the testicle, the latter has been distinguishable through the abdominal parietes with more or less ease, separated from, and generally situate below, the hernial protrusion. In such, of course, there is less ground for perplexity. But in some few others, as in the case now reported, it has not been possible to make out any distinction of this kind, and probably on account of the atrophied condition of the gland. Here, on the other hand, the diagnosis may be extremely difficult. Yet we shall search almost in vain for any remarks on this important point, much less for any detailed observations relating to it. Mr. Lawrence has collected several cases, more or less resembling this in their essential

particulars, from Scarpa, Richter, Haller, Cloquet, Pott, and others; the parts from two of which, now forming preparations in St. Bartholomew's Museum, very clearly exhibit the peculiarity.¹ Sir A. Cooper appears not to have met with one himself, at the time when his great work was published. He collected and detailed there, four or five examples, and remarks: "When a hernia thus inclosed with the testicle in the inguinal canal becomes the subject of strangulation, very nice examination is required to detail the exact nature of the swelling."² Chelius simply refers to the occasional occurrence of the complication.³ Samuel Cooper, in the 'Dictionary,' barely alludes to the fact.⁴ Aston Key, in his memoir, gives one case almost exactly corresponding with that here related.⁵ Bransby Cooper says: "I have myself met with considerable difficulty, whilst operating in a case of congenital bubonocoele, from mistaking a non-descended testicle for a hernial sac."⁶ In the works of Percival Pott and Langenbeck, both of whom paid special attention to the congenital form of hernia, we meet with no recognition and with no solution of the difficulty. In Guthrie's lectures on hernia; in the systematic surgical treatises of Liston, Fergusson, and other modern authors, no notice is taken of it; and not any one among the authors mentioned enters upon the question of diagnosis in relation to the treatment of acute symptoms. Velpeau remarks that a "retained testicle is sometimes embarrassing to the operator;" and elsewhere says—"I would make the same remark of the epiploon and *testicle*, or strangulation of the cord, of adipose tumours, and inflammation of the sac; so that in inguinal hernia, as in any other, an insurmountable constipation with stercoral vomitings positively indicate a strangulation or obstruction of the intestine."⁷ Few, how-

¹ Lawrence, pp. 272, 567—571. The preparations referred to are in Series xvii, Nos. 1, 2.

² A. Cooper, p. 66.

³ Chelius, South's trans., vol. ii, p. 62.

⁴ S. Cooper, 'Dict.,' p. 720.

⁵ 'A Memoir,' &c., p. 25.

⁶ 'Lectures on Surgery,' p. 492.

⁷ Vol. iii, pp. 672 and 79, Mott's ed.

ever, will now, I think, deny that it is extremely desirable to form a diagnosis, and to act promptly upon it too, some time before the appearance of stercoral vomiting has announced the lesion and its dangerous character. Mr. Erichsen, in his recent work on surgery, calls attention to the fact that an undescended testicle may become inflamed in the groin, and that "the difficulty of the diagnosis from strangulated hernia may be very considerable." He points out "the absence of the organ from the scrotum on the affected side, the peculiar sickening pain occasioned by pressure upon the tumour, the absence of gurgling, and of all possibility of reduction," as the facts from which the presence of the testicle may be inferred.¹

The points, in the case already related, which appeared to be diagnostic, and which determined me to operate, with the conviction that the tumour was unquestionably a strangulated hernia, may be stated as follow :

First, as regards the history, little could be elicited tending to establish the nature of the swelling to which the patient had been subject. He had, however, never been led to suppose, from the peculiar character of the pain he had occasionally felt on its appearance, that it might be due to the presence of the testicle. So far, this was in favour of the supposition that it was intestine.

Secondly ; the general symptoms were strongly corroborative of this view. Vomiting, although not yet feculent, had existed almost uninterruptedly during thirty of the thirty-six hours which had elapsed since the appearance of the swelling. Constipation, in spite of active purgatives, had persisted about a similar period. At the same time a small and quick pulse, and a degree of anxiety, in addition to severe abdominal pain, indicated serious interference with some important function. Inflammation of the testicle within the inguinal canal, I have myself seen accompanied with febrile disturbance, and also with vomiting, but

¹ ' Science and Art of Surgery,' p. 763.

transient in its duration compared with the stomach's action in this case.

Thirdly; the evidence afforded by a local examination appeared to favour the view that the tumour contained protruded intestine. When handled it was more elastic and compressible than the swelling which is presented by a testicle during an attack of acute inflammation, at all events, when occupying its natural situation. There was a marked absence of that sensation of resistance, solidity, and weight, which is experienced in manipulating the organ in the circumstances named. Again, there was no perceptible elevation of temperature in it, as compared with the surrounding parts, a condition the contrary of that which obtains in orchitis. There was a slight degree of general distension and tympanitis of the abdomen, which could not be readily explained in the last-named condition.

Lastly; the subjective symptoms appeared to be of less diagnostic value. Some stress has been laid on the importance of learning the kind of sensation experienced by a patient on firmly pressing a doubtful tumour of this kind, and of ascertaining whether it is identical with that peculiar pain which such treatment always produces in the testicle. A patient who is the subject of severe suffering, rarely, perhaps, describes his sensations with sufficient perspicuity at the time to afford trustworthy data in such a matter. Nothing, at all events, could be thus obtained in this case which was worthy of reliance. The whole abdomen was more or less painful, and both it and the tumour were notably tender on pressure. Besides this, there was desire to go to stool, and a self consciousness that ability to pass a motion would afford relief, a condition which seems generally to have been found associated with acute obstruction of the intestines.

The various conditions, local and general, which have been thus enumerated, taken in connection with absence of the gland from the scrotum on the affected side, are, I think, sufficient to establish pretty clearly the nature of a tumour presenting in the manner described. There remains one

important practical inference to be drawn from what we know of the nature of the constriction which is exerted upon the intestine in these cases. In several of those similar examples already alluded to, the stricture was found to be unusually tight, and the strangulation correspondingly severe. In this instance, although not more than thirty-six hours elapsed between the implication of the bowel and the operation, it has been seen that the viscus was unable to recover its vitality in the line of constriction. May we not conclude that, in this class of cases especially, no delay, beyond that which is actually necessary for the purpose of making a diagnosis and fairly applying the taxis, should take place before the patient is submitted to the influence of chloroform, and if this be ineffectual, to the application of the knife? *There should be no temporising with the tumour in the hope that it may prove not to be intestinal.* If the symptoms are such as to admit only of a vague and obscure interpretation, an exploratory incision should be made in order to solve the doubt, and that without loss of time, because irreparable injury may be so speedily sustained if a portion of intestine be really involved. In other words, if a doubtful or imperfect diagnosis of the nature of the tumour itself result from a careful and intelligent examination, we should the more promptly decide on the resort to operative measures, and not be tempted to seek or wait for the evolution of fresh symptoms; since, supposing strangulated hernia not to be present, the exploratory incisions are unattended with danger, while the postponement of the operation is almost certain to be fatal if that lesion, masked by some unintelligible complication, do really exist.