"urgent bearing downwards" while doing so, is a common cause of the displacement. If philosophers will quarrel and split a hair about the words suppression and retention, they may do so; but I think it infinitely beneath them.

Although Hunter did believe that the displacement was the cause of the retention, it is evident that he also believed that retention or suppression of urine might in turn give origin to retroversion.

The view which Denman took, in direct opposition, as he supposed, to that of Hunter, in his own words, is as follows:—"The retention of urine has hitherto been supposed to be the consequence of the retroversion of the uterus, which has been ascribed to various accidental causes. But if we consider the manner in which these parts are connected, and examine the effect produced by the inflation of the bladder in the dead subject, so as to resemble in some measure the distension brought on by a retention in the living, we shall be convinced that *the uterus must be elevated before it can be retroverted*. Now, as there appears to be no cause, besides the distension of the bladder, capable of elevating the uterus, and at the same time projecting its fundus backwards; and as such elevation and projection necessarily follow the distension of the bladder,—it is more reasonable to conclude that the retention of urine precedes the retroversion, if we do not allow it to be a cause without which the retroversion cannot exist. Moreover, if the uterus be in a state which permits it to be retroverted when the bladder is much distended, a retroversion is a necessary consequence, or it may be produced by a very trifling accident. If a woman, for instance, about the third month of her pregnancy, has a retention of urine continuing for a certain time, and producing a certain degree of distension of the bladder, we may be assured that the uterus is retroverted." (Denman's *Midwifery*, 5th edition, pp. 138-9.)

Denman seems to have raised a phantom of difference between his own and Hunter's views, but I cannot help thinking that they are almost identical. If anything, Denman's is more one-sided, and not so complete. In what follows, I shall endeavour, from a still more extended knowledge of facts than either of those illustrious observers possessed, to draw the outline of a theory which, if it does not explain all the phenomena, will at least be found in consonance with the facts.

Appended to this paper, I have collected in a tabular form all the more important facts connected with recorded cases of retroversion of the gravid uterus. The cases are sixty-three in number, ranging from the year 1746 up to the present time. Out of the sixty-three cases, fifteen died; and I have the full details of twelve *post mortem* examinations. In my selection, I have not picked one case for the purpose of favouring any theory; I took them as they came, in order that any statistics framed from them might represent the truth. No doubt I have missed many cases, on account of several volumes being absent in our library, and from the want of others which never belonged to it. Among the cases which I am aware I have missed, are four which were fatal; they would have rendered the mortality even greater than I have stated. All doubtful cases I have excluded.*

The more we examine the facts and the order of the phenomena, in a considerable number of cases, the more shall we be convinced that no single theory can explain or account for retroversion of the gravid uterus at every stage of gestation, or for a general symptom, such as retention of urine. As well might we expect one theory or explanation to account for hernia, or for the symptoms of deafness, blindness, or amenorrhoea. Doubtless, the retention after the displacement depends upon mechanical obstruction, from pressure on the neck of the bladder or on the course of the urethra. But what brings about the displacement?

Causes, as stated, of sixty-three Cases of Retroversion of the Gravid Uterus.

No cause stated	29
No cause traceable	8
Strained, walking, running, stooping, working, and washing; six of which arose from lifting heavy weights	12
Were the direct result of a fall, chiefly on the coccyx	5
Fright	4
Neglecting a call to micturate	3

* I think it proper to state that, although Dr. Dewees, in an able article in the *Philadelphia Journal* for 1821 (vol. ii, p. 76), has endeavoured to represent Dr. Merriman's cases as extrauterine pregnancies, still, as the distinguished Philadelphia professor's views on this point are not generally accepted in this country, I have included Dr. Merriman's cases as genuine.

Bearing down during a threatened miscarriage	1
Violent tenesmus, attending the action of drastic cathartics to procure abortion	1
	63

I do not mean to say that the causes recorded are absolute; but they may enable us, nevertheless, to approximate towards the truth. I think the sixty-three cases warrant me in concluding that, so far as the mechanism of the displacement is concerned, there are five distinct classes of cases on record; viz. :—

1. Those which I have already alluded to, where the retroversion occurs at or before conception.

2. Cases where it has occurred suddenly, from a self-evident cause, such as a fall on the coccyx or tubera ischii; the bladder being more or less full.

3. (Denman's theory.) Cases arising from over-distension of the bladder; such as neglecting a pressing call to micturate, or a fright, or other mental emotion likely to derange the function of the bladder, particularly in hysterical females.

4. (Hunter's theory.) Cases where, during pelvic gestation with a contracted brim, increased sacral curve, absence of adipose tissue, and with more or less dysuria and bearing down efforts, the uterus is thrown backwards and prevented from upward growth, or from emerging from the brim, by an unusual projection of the promontory of the sacrum.

5. Cases arising from excessive action of the abdominal muscles; such as the act of defecation with a loaded condition of the colon and rectum, or the action of drastic purgatives, and the bearing down efforts of a threatened miscarriage; or where it has happened suddenly, during the act of vomiting, coughing, stooping, leaping, lifting heavy weights, or after violent or fatiguing exercise; the bladder being empty, or more or less distended in all, without dysuria or retention previously existing.

A sixth class might be formed by a combination of any of the forces or conditions grouped under Classes 2, 3, 4, and 5.

The first and fourth varieties are necessarily slow in their formation; while the second, third, and fifth are more sudden in their occurrence.

[To be continued.]

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

CASES OF STRANGULATED HERNIA; WITH REMARKS ON THE IMPROPRIETY OF APPLYING FORCIBLE TAXIS.

By JAMES ROUSE, Esq., Surgical Registrar to the Hospital.

CASE I. J. L., aged 53, a butcher by trade, was admitted on January 14th, 1860, under Mr. Johnson.

History. Five months before his admission, he was knocked down by a blow in his belly, and an oblique inguinal hernia appeared on the right side. He came to St. George's, and there being no symptoms of strangulation, ice was applied, and after forty-eight hours the hernia was reduced, and he was discharged, with a truss. Three months subsequently he again presented himself with the hernia down. It was then easily reduced by the house-surgeon, and he returned home the same evening. On January 15th (the day before admission), while he was riding, the hernia again came down. He sent for his surgeon, who, together with his assistant, endeavoured for more than two hours, by means of the taxis, to reduce it, without success. He was sick soon after the rupture came down, and twice during the day. Finding that he was getting worse, he again came to St. George's.

On admission, he was not suffering from symptoms of strangulated intestine. He had no pain in the abdomen, nor tenderness on pressure. There was a large oval tumour in the right side of the scrotum, as large as a cocoa-nut; it was not tender on pressure, but the whole scrotum was extensively ecchymosed from the violent taxis applied before admission. Under these circumstances, the house surgeon did not send for Mr. Johnson, but applied ice.

Jan. 15th, 10 A.M. He had passed a very restless night; he had vomited once, at 8 A.M. There was no pain, and the tumour was soft.

At noon he became suddenly collapsed; the tumour had become tender, and he complained of pain in the abdomen. The face was shrunken, and of a leady hue; the fingers were blue and cold. Stercoraceous vomiting commenced, and he was scarcely conscious. A consultation having been held, herniotomy was immediately performed. The usual incision having been made, the sac was laid open; and it was found to contain several ounces of bloody serum, some large clots of coagulated blood, and about eight inches of very dark intestine. All the tissues of the bowel were much thickened, and there was deposit of lymph on its external coat. The dark colour of the gut was found to depend on blood extravasated under the serous covering; and there were also several large patches of extravasated blood between the layers of the mesentery. The stricture having been divided, the gut was returned, but with difficulty on account of its thickened state. It was then discovered that the hernia was congenital, and that there was a large diverticulum situated at the lower and back part of the sac, into which the intestine had descended. He was sick several times during the operation. The edges of the wound were brought together by sutures, and a pad applied over the wound. He rallied somewhat after the operation. The bowels were relieved three times, and he was only once sick. He continued to improve until 2 A.M. on the 16th, when he was seized with sudden collapse, and died shortly afterwards.

Post Mortem Appearances. The scrotum contained a good deal of extravasated blood. The internal ring was of large size, and an incision of a quarter of an inch in length was seen at its circumference. The sac of the hernia was quite empty, except of blood, of which it contained a few coagula; at its lower part was a deep depression or diverticulum. The testicle lay at the lower part of the sac, and it was coated, external to the tunica albuginea, by a layer of extravasated blood nearly half an inch thick. This blood was not discoloured, and appeared to be recently effused. There was a very small clot of blood in the peritoneal cavity; no other morbid appearance was seen there. The gut which had been in the hernia, a piece about six inches in length, was found near the internal abdominal ring; it was a piece of small intestine, a few feet from the ileo-cæcal valve. The coats of the gut were much thickened, so that it had a leathery feeling, and there was a good deal of extravasated blood both in the submucous and subserous tissues. There was no gangrene of the intestine; but its coats could be more easily separated from each other than in other parts of the gut.

CASE II. W. C., aged 35, was admitted, under Mr. Pollock, on December 18, 1859, with the following history:—

About Christmas 1848, while at work on a railway lifting a heavy weight, he felt something give way in his abdomen; he immediately felt pain in the right groin, and, on making an examination, he discovered a swelling in that situation. He went to a surgeon, who reduced the hernia; and since that time he had always worn a truss. During the last two years the truss had been broken, and the hernia had been constantly coming down; but he had always been able to return it. Three days before admission, he was working very hard filling an ice-house, when the rupture again came down. The tumour was then much larger than it had ever been before, and he was unable to return it. He walked home, a distance of three-fourths of a mile, and sent for a medical man, who tried the taxis for a considerable time without success. Attempts were made several times, on the following day, to reduce the hernia, with a like negative result. The tumour became very tender during that day, and the following morning there was great pain in the abdomen, and pressure could not be borne. During this day he was constantly sick, the matter vomited being very dark in colour.

On admission, there was an oblique inguinal hernia on the right side. The tumour was as large as an orange, and very tense and tender; the skin over the tumour was somewhat inflamed. There was pain and tenderness on pressure of the abdomen; he was constantly sick; the face looked shrunken; the pulse was very rapid and weak. In consequence of the urgency of the symptoms, herniotomy was performed immediately. On opening the sac, a large piece of congested omentum was found, and on turning this back five inches of very dark intestine were seen. The stricture, which was very tight, having been divided, the intestine was returned. The omentum was found to be partially adherent to the neck of the sac, so only a portion of it could be returned into the abdomen.

On the 19th, the peritonitis had increased in severity. He was given calomel and opium; but he gradually sank, and died on the 20th.

Post Mortem Appearances. On examining the parts concerned in the hernia, it was found that a large quantity of omentum was lying in the hernial sac, the neck of which appeared to have been at the internal inguinal ring; this omentum was traced down to the top of the tunica vaginalis, to the outer side of which it was adherent. Inside the abdomen, and distant two inches from the neck of the hernial sac, was a portion of omentum somewhat constricted and thickened, as though from the pressure of the stricture. The gut which had been contained in this sac could easily be recognised from its congested appearance, but was otherwise natural; it was a piece of small intestine, about four inches in length. A large amount of lymph and pus was contained in the peritoneal cavity.

CASE III. W. H., aged 50, was admitted January 13th, at 2 P.M., under Mr. Johnson, with a strangulated oblique inguinal hernia.

History. Fourteen years ago, after a severe strain, a hernia protruded on the left side. He had worn a truss from that time, notwithstanding which the rupture was constantly coming down. He had never any trouble in returning it. At 10 A.M. on the day of admission, while dressing, the hernia again protruded, and the tumour was rather larger than usual. He had immediately severe pain in the abdomen; he endeavoured to reduce it, by forcible manipulation for two hours, but finding the pain very severe, and the tumour tender, he came to the hospital.

On admission, there was an oval tumour, as large as the fist, in the left side of the scrotum. The tumour was very tender, but not tense; he complained of considerable pain in the abdomen; he had been sick several times during the day. The pulse was 76, irregular and intermittent; he was very restless, and constantly tossed himself about. At 4.30, herniotomy was performed. The usual incisions having been made, the sac was laid open, and eight or ten inches of dark congested intestine were seen; there was considerable bruising of the gut, and there were several patches of coagulated blood between the layers of the mesentery. The stricture, which was very tight, having been divided, the gut was returned; the edges of the wound were brought together by means of sutures, and water dressing was applied. The day after the operation, he was attacked with acute inflammation of the sac, which went on to suppuration. With this exception, he did remarkably well, and was discharged cured.

REMARKS. It appears strange, in these days of improvement in the practice of surgery, that so eminent a surgeon as M. Gosselin should advocate so rough and unscientific a plan of treatment for hernia as forcible taxis. The cases above given illustrate well the serious and even fatal effects of the taxis applied without due consideration of the delicacy of the structures handled.

In the first case, in all human probability, the patient would have recovered but for the rough method employed to reduce the hernia. The patient, even when admitted into the hospital, was not labouring under symptoms of strangulated gut; and, taking into consideration the fact that the hernia had on two previous occasions been reduced by only a moderate use of the taxis, it would have been more judicious to have applied ice, and to have waited for a few hours to see what effect was produced by the application of cold. It is found at St. George's Hospital that, in cases of inguinal hernia, the application of ice is far more successful than the use of the warm bath, and far less exhausting to the patient, should symptoms come on indicating strangulation of the gut, thus rendering an operation necessary.

It must be remembered that cases of strangulated inguinal hernia are comparatively rare; and the result of the carefully recorded statistics of these cases admitted into St. George's Hospital proves that in most instances urgent symptoms did not come on until after repeated attempts at reduction. In the second case related, it is seen that the patient died of peritonitis, which existed when he was taken into the Hospital, and which had evidently been caused by long-continued use of the taxis. But, to return to the first case, it is most probable that if the taxis had not been applied, strangulation of the bowel would never have taken place; for no urgent symptoms existed until the contents of the sac had been very considerably increased by extravasated blood between the layers of the mesentery and between the tunics of the bowel itself. Of the force used in this case there can be no question; for, allowing

that under peculiar circumstances blood might have been poured out between the coats of the intestine, nothing but violence could have caused extravasation between the tunics of the testicle.

Forcible taxis may cause rupture of the sac, and the following case illustrates this accident:—

CASE. J. F., aged 60, was admitted into St. George's Hospital, under Mr. Tatum, March 14th, 1857. He was the subject of a congenital inguinal hernia, which had been operated on fifteen years before. Four days previous to his admission, the hernia had descended again; it was returned by the taxis. It came down again the following day, and after the taxis had been tried for a lengthened period without success, he was sent to St. George's.

On admission, the tumour was large and tender, the scrotum was purple from ecchymosis, the result of the taxis applied before admission. Herniotomy was performed, and when the sac was exposed it was found to be ruptured; and the size of the tumour mainly depended on a large quantity of serum and blood, which had become infiltrated into the areolar tissue from the rupture. On opening the sac, a large quantity of serum and coagula escaped; two folds of intestine were seen, not congested, but thickened, red, and inflamed, with lymph deposited on the surface. The stricture was divided, and the bowel returned. This patient lived for twenty-four hours after the operation, and died of peritonitis. It will be seen from this history that death was caused by improper use of the taxis; and from the state of the bowel when exposed, it may be fairly concluded that it was not strangulated in the first instance, but only irreducible.

Injury by the taxis is not always inflicted by the surgeon, but by the patient. In the third case related the bruising was the result of the patient's own efforts, and there is a preparation in the museum of St. George's where rupture of the bowel was caused by a patient endeavouring to reduce a femoral hernia.

It may be asked, in what cases is the taxis to be used? From the statistics of St. George's, it is quite clear that it ought not to be used in cases of strangulated femoral hernia, indeed it is hopeless to attempt it. When operated on early, these cases almost invariably do well, but when allowed to remain strangulated for many hours, and constant irritation kept up by the taxis, the patients as surely die. There appears to be a very general impression (judging from the evidence obtained from a large number of patients suffering from strangulated herniæ) that a certain number of attempts at reduction are necessary, and no distinction is made between the treatment to be adopted for strangulated and irreducible herniæ. It is a great question whether it ought ever to be employed in the former; if undoubted symptoms of strangulation exist the sooner the operation is performed the better. It is self-evident if a portion of gut be strangulated, the more it is handled the greater the constriction becomes, inflammation is set up, and although an operation be performed, the patient more frequently dies than not. In cases of irreducible hernia, no cause for haste exists; ice may be applied, and the volume of the tumour having become diminished, the gut can be returned by very moderate use of the taxis. If, on the other hand, the tumour is being constantly irritated, whether by the surgeon or the patient, ten chances to one strangulation will be induced. There is one other danger to be remembered in the use of forcible taxis, to wit, partial reduction of the tumour, and continuation of the symptoms of strangulation. Such a case occurred at St. George's Hospital some years ago. The history preserved is rather an imperfect one, but it appears to be as follows:—

CASE. W. T. was admitted with strangulated inguinal hernia. He was in a state of great depression, with a pale anxious countenance and small pulse. In the right inguinal region there was a hernial tumour about the size of the fist; it was tense and tender. The abdomen was tender and painful, but not distended. Owing to the low state of the patient, all that could be learned of the history of the case was, that the hernia had been down twenty-four hours, and that there had been frequent vomiting and great pain in the abdomen since its descent. The taxis was applied ineffectually; he was placed in a warm bath, and while there all the apparent tumour went up by use of the taxis, and the finger could be readily passed into the canal. The symptoms were not relieved, and the patient died seven hours after he was admitted.

Post Mortem Examination. The cavity of the peritoneum contained a small quantity of dark coloured serum, presenting an opaquish appearance. The intestines were distended with flatus, but they were not in the least discoloured, neither were

there any traces of recently effused lymph on the surface of the serous membrane. A portion of small intestine, two feet from the cæcum, was traced into the internal abdominal ring, through which it passed into the inguinal canal, where it was found enveloped by a condensed and thickened hernial sac, which occupied about two-thirds of the length of this canal. On laying open this hernial sac, which was flaccid, a small quantity of blood-tinged serum escaped. Its cavity was lined by some coloured fibrinous effusions, forming false membranes, and at its upper part was the knuckle of small intestine, of a very dark colour, and covered with red false membranes, through the medium of which it was united to the sac; these adhesions were easily broken through by the finger. The knuckle of intestine occupied one-third of the cavity of the sac; the internal abdominal ring was exceeding small, and so perfectly strangulated the gut that it was found impossible to draw the bowel through it. The external abdominal ring was quite free; some patches of blood were found in two or three places on the mesentery, in the neighbourhood of the strangulated portion.

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PROBATIONARY HOUSES FOR THE TREATMENT OF INCIPIENT INSANITY.

THERE can be no doubt that the law, as it at present stands, with regard to the incarceration of persons of unsound mind, is fast giving way. As long as the term "lunatic" was limited to the raving maniac, the seizure of the unfortunate individual by any stratagem, and his forcible detention in an asylum, were procedures imperatively called for; but with the growth of psychological medicine, this acute type of mental disease has descended to a subordinate place in the category of mental afflictions; and the alienist physician is called upon to treat an infinity of cases which heretofore would not have been considered to come within his speciality at all. The almost infinite shades of mental alienation—the very flutter, as it were, of the mind between sanity and madness, which we are called upon to watch more narrowly year by year—has introduced a state of things to meet which the lunacy law, as regards asylums, is becoming every day more unsuitable. We see evidence of this truth in the many disputes which have arisen between the Lunacy Commissioners and the proprietors of asylums with regard to the admission of patients upon (so-called) improperly filled up certificates, and in the law-suits which have been instituted by patients against those whom they have accused of detaining them while in a sane state.

The reason of this unseemly struggle is clearly traceable to the difficulty of fixing the exact amount of madness which renders a patient liable to be certificated. So great has this difficulty become, that it is a well known fact that many physicians absolutely refuse to sign certificates, except in cases of confirmed lunatics. This growing indisposition to sign on the part of the profession—an indisposition forced upon them by the inelasticity of the form of certificate itself, and by the literal manner in which it is read by the Commissioners—is, however, a great calamity to the patient himself, inasmuch as, during the hesitation to sign or not to sign, the golden moments are allowed to slip during which proper curative treatment is found to be so effectual.