

"I am indebted to Sir Philip Crampton for an examination of one of the most extraordinary pathological dissections of diseased bone, perhaps, in existence, consisting of the entire internal ear, cochlea, vestibulum, and semicircular canals, from the meatus of a lady, who, after the most urgent symptoms of inflammation of the brain, with paralysis of the face, arm, and leg, with total deafness of one side, recovered from the head-symptoms and the paralysis of the extremi-

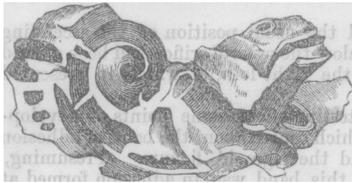


FIG. 2.—Wilde's sequestrum (enlarged on the same scale as Fig. 1).  
FIG. 2A.—Outline of Fig. 2 (natural size).

ties, after a copious discharge of matter from the ear. The discharge continued until Sir Philip, perceiving a portion of loose bone lying deep in the meatus, drew forth the specimen from which this illustration has been made. In this, it does not appear that the hard external enamel of the bone was affected, but the scala cochleæ is far more beautifully displayed than could possibly have been done by art."

This case differs obviously from Shaw's and Hinton's, and from the present one, in the severity of the constitutional symptoms; and the unilateral paralysis is noteworthy. Politzer, commenting on this case, reads that this disappeared after the removal of the sequestrum; but it will be seen that Wilde's language is not clear on this point, for the statement would apply equally well to the deafness, from which the patient can hardly have recovered.

In addition to these cases, one or two more of sequestra of nearly all the labyrinth, but probably not including the semicircular canals, and a few more of the removal of fragments of the organ, may be found among the records of otology,<sup>1</sup> but Shaw's and Sir Philip Crampton's cases appear to be always quoted as the most complete and illustrative ones of this pathological condition; and, inasmuch as neither specimen appears to be accessible at the present time to aural surgeons, I have thought it worth while to present my own specimen to the Hunterian Museum, and to direct the attention of the Fellows of the Medical Society to it.

But little difficulty will be experienced in recognising the various parts of the specimen now shown, suspended as it is in nearly its natural position in the body, by the superior transverse vertical semicircular canal, which is almost perfect, and within which a trace of the membranous canal may be seen with a lens. The other two canals will also be seen to be hardly less perfect than the upper one. The common opening of the inner extremities of the longitudinal and transverse canals is well shown, as is also the outer ampullary dilatation of the former. The cavity of the vestibule is displayed on the outer side, about the centre of the specimen; and the terminations of the internal auditory meatus and of the aquæductus vestibuli (?) are similarly to be seen on its internal aspect. The remains of the round and oval fenestræ are with less certainty recognised. The anterior extremity of the specimen shows upon its outer side the cochlea opened, just below its apex, exposing the spiral lamina, modiolus, etc.; and upon the inner side a small part of the interior of the tympanic cavity and the canal for the tensor tympani are seen. The posterior part of the specimen consists of an irregular portion of the mastoid cells.

With regard to the clinical aspect of the case, also, but little need be said. The implication of the portio dura is only what might be expected, and what almost invariably seems to happen; but the partial recovery is interesting, as illustrating the great resisting power which nerve-cords possess against inflammatory disintegration.

The fact that the brain was seemingly not at all disturbed by the near presence of this severe necrosis is also noteworthy. The frequent absence of cerebral complications has been commented upon by Toynbee and Politzer, and is doubtless due, as the latter states, to a

<sup>1</sup> Thus Voltolini has extracted the whole labyrinth by the meatus in a child, and describes a similar case in the practice of Jacobi (*M. für Ohrenheilk.* 1870). Delstanene fils removed the labyrinth, with the exception of one semicircular canal. There was also necrosis of the external meatus (*Arch. für Ohrenheilk.*, vol. x). Gottstein showed, at the meeting of the Congress at Milan in 1880, a sequestrum of a portion of the labyrinth only (*Arch. für Ohrenheilk.*, vol. xvii). Moos (quoted by Politzer, *loc. cit.*) records a case where severe cerebral symptoms, existing only a week or two, disappeared on the removal of the necrosed semicircular canals. Again, sequestra of portions of the labyrinth may remain *in situ*, and be found on *post mortem* examination. Toynbee (*op. cit.*), Troltsch (Virchow, *Arch.*, vol. xvii), and Politzer (*op. cit.*).

conservative proliferation of the connective tissues in the outer lamellæ of the dura mater.

But, perhaps, the most interesting point about all these cases of sequestra, consisting of the whole, or of portions of the labyrinth, is the fact that we have here the inflammatory process acting as the anatomist of by-gone days, fashioning out of the various component parts of the periotic capsule that artificial creation "the bony labyrinth"; as if it, indeed, were a separate irregular eburnated sac, embedded in the petrous bone, like a fly in amber; in it, but not of it.

That such a conception is erroneous, is, of course, now well recognised, for the investigation of the mode of development of the parts in connection with the organ of hearing shows that the auditory capsule, or sac of the membranous labyrinth is surrounded by and enclosed in the cartilaginous segments of the periotic capsule, which latter ossify around this labyrinth, forming the petrous and squamous bones, and having large lymphatic spaces intervening, within which the perilymph collects.

The greater density of those portions of the three original periotic bones which are next to these perilymphatic spaces, gives the appearance as of a structure embedded in, and differing from the rest of the petrous bone; and, no doubt, from this same cause, the general progress of the disintegration by necrosis of the petrous bone, was arrested, in the specimen here exhibited, so that the appearance is presented of a "bony labyrinth," dug out, as it were, from the rest of the bone to which it properly belongs.

#### A CASE OF STRANGULATED HERNIA INTO THE FOSSA INTERSIGMOIDEA.

By FREDERIC S. EVE, F.R.C.S.,

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IN his very valuable lectures on the Anatomy of the Intestinal Canal and Peritoneum in Man, Mr. Treves refers to (*BRITISH MEDICAL JOURNAL*, March 31st, 1885, p. 583) a case of hernia into the fossa intersigmoidea, which I narrated in some lectures (*Illustrations of Intestinal Obstruction*) given at the Royal College of Surgeons in February, 1884. This fossa, first described by Hensing, is met with as a pouch or depression of the peritoneum, forming the left or under layer of the meso-sigmoidea passing to the upper part of the sigmoid flexure. For details of its position and relations, reference may be made to Mr. Treves's lectures, to the classical monograph of Treitz (*Hernia Retro-peritonealis*, Prag, 1857), or to a later summary of the subject by Waldeyer (*Virchow's Archiv*, Band lx, s. 66).

Augusta H., a dressmaker, aged 63, was admitted to St. Bartholomew's Hospital, under the care of Dr. Southey, on December 30th, 1882. She stated that she had been in good health until December 26th, at 10 A.M., when she was suddenly seized with violent constricting pain around the abdomen in the region of the epigastrium, was immediately violently sick, and passed a large loose motion. She had sometimes suffered with indigestion, with a similar tightness across the epigastrium to that she now experienced, but was relieved by purgatives. Her bowels had always been regular. On the 27th, she passed a very small motion, with a little slime and blood. After the onset of the attack, she vomited all food. The vomit was at first bilious, but on the 28th it became brown, and smelt like a motion. She had noticed that she had passed much less urine than usual.

When admitted on December 30th, her expression was anxious; pulse 84; temperature subnormal; respirations 20. She complained of slight pain in the abdomen, which was largely, uniformly, but not tensely, distended, and showed, through its walls, vermicular movements of the coils of intestine. The tongue was furred, but moist. There was incessant retching, but no vomiting. The rectum was free, and an enema of three-quarters of a pint of warm water returned, with small soft masses of feces and blood-stained mucus. During the first eighteen hours after admission, she voided eleven ounces of urine, of specific gravity 1022. She passed a restless night, and at 1 A.M. on December 31st vomited for the first time, the vomited matter being feculent. Five minims of tincture of opium were given every four hours.

January 1st, 10 A.M. There had been slight vomiting in the night, but none since then. She had less pain, but prostration was greater. Pulse 108; temperature 97.8°; respiration 20. The tongue was moist, with a thick brown fur.

January 2nd. After a consultation, Mr. T. Smith performed the operation for right lumbar colotomy. A portion of intestine was opened, and much fecal matter evacuated.

January 3rd.—A copious discharge of fæces had taken place through the wound, and she had not vomited since the operation, but still complained of pain in the abdomen. Morning temperature, 99°; evening, 99.6°.

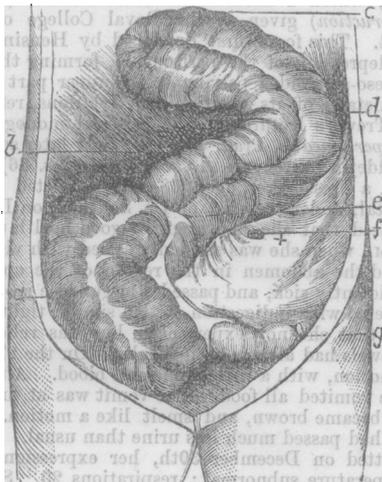
January 4th.—She appeared to be in much the same condition. Pulse 120; temperature 98°.

Early on the morning of the 5th collapse suddenly supervened, followed rapidly by insensibility and death.

*Necropsy.*—On opening the abdomen, I found the following condition. The intestines were injected and distended with flatus, but there was no effusion of lymph. On moving them aside to the right, it was observed that the sigmoid flexure was displaced towards the middle line; and, extending from its posterior surface towards the left iliac fossa, was a sheet of peritoneum through an opening in which a knuckle of small intestine passed. The protruded intestine was withdrawn without the least resistance, and proved to be a portion, about six inches in length, of the lower end of the ileum. It was moderately congested, and was marked at each end by a slight constriction.

The opening in the peritoneum (see Fig. *f*) was oval, and its long diameter measured half an inch. It was situated close to the left side of the sigmoid flexure, its lower margin being from an inch to an inch and a half above and to the outer side of the sacro-iliac synchondrosis, and an inch from the ovary. On dissecting up the peritoneum from the subjacent muscles, the opening was found to lead into a sac of peritoneum having very thin walls, which were attached to, or continuous with, the margins of the opening. The sac was pyriform, measured three inches in its long diameter, and extended upwards and backwards beneath the large intestine. Its posterior surface, in contact with the iliacus and lumbar muscles, was easily dissected from its connections, but its anterior surface was so closely connected with the peritoneum and posterior surface of the large bowel, that its continuity, in parts, could not be established.

The sigmoid flexure was nearly surrounded by peritoneum, but had not a distinct mesentery, the two layers of peritoneum reflected from it being nowhere in contact. Above the opening of the hernia, the flexure was bound down to the iliac fossa by three bands of thickened peritoneum. The much distended cæcum (*a*) occupied a position immediately to the right of the middle line.



*a* cæcum, turned forwards; *b*, ascending colon; *c*, continuation of colon, bent on itself; *d*, descending colon; *e*, band of adhesion; *f*, fossa intersigmoidea; *g*, end of ileum.

The ascending colon (*b*) took a course obliquely across the abdomen to the left hypochondrium, where it turned sharply to the right, and followed the curve of the diaphragm until it reached the middle line; here it became suddenly bent upon itself and returned, above and parallel to its previous course (*c*) to the lower edge of the spleen; thence it took the normal direction to the sigmoid flexure. Both the ascending and descending portions of the large intestine were closely united, and almost surrounded by a single layer of peritoneum. A transverse colon, it need scarcely be said, did not exist.

Just above the cæcum, the ascending colon and adjacent curve of the sigmoid flexure were bound together by a ribbon-like band of fibrous tissue (*e*) three-quarters of an inch in breadth and half an inch in length; the adhesion to the flexure was two inches below the level of the hernial opening. The ascending colon was slightly narrowed by the tension to which the band gave rise, but the calibre of the

lower bowel was unaltered, and, with the other large intestine, was of the usual dimensions.

The upper end of the misplaced colon was connected by the great omentum to the great curvature of the stomach. In front of the sharp bend of the ascending colon at the middle line was a funnel-shaped pocket or *cul-de-sac*, three inches in length, which was formed by a depression or involution of peritoneum between the parallel running folds of large intestine.

Part of the jejunum occupied the usual position of the ascending colon, and at a point two feet below the pyloric orifice had been opened and attached to the wound in the right loin, at which it presented during the operation.

The condition of the large intestine offers some points of development and anatomical interest, which centre about the band of adhesion between the ascending colon and the sigmoid flexure. Presuming, as its appearance justifies, that this band was an adhesion formed at an early stage of development, the peculiar position of the large intestine becomes readily intelligible. The commencement of the ascending colon being tied to the lower part of the large bowel—which throughout development nearly retains its original position—the cæcum would be prevented from taking its usual course from the left hypochondrium to the right, and thence down to the right iliac fossa. Instead, it appears to have taken a direct path from the left hypochondrium, obliquely across the abdomen to the right iliac fossa, carrying after it the ascending colon, which thus remained in close contact with the descending colon. The band appears likewise to have induced conditions favourable to the occurrence of hernia into the fossa intersigmoidea, in the following manner. The left layer of the meso-sigmoidea being put upon the stretch by the displacement of the flexure towards the middle line, the orifice of the fossa would be rendered firm and immovable, and, further, may have been enlarged by the tension on the peritoneum around it. The importance of these collateral conditions is rendered forcibly apparent, when the paucity of cases of intersigmoid hernia is contrasted with the constancy and occasionally large size of the fossa. Treves found a perfect fossa in 52, and a funnel-shaped depression in 13 per cent., making a total of 65 per cent. of the bodies examined. By Waldeyer it was observed in 84 or 85 per cent. of subjects; but as he points out, there are various conditions tending to prevent the occurrence of hernia within it. Of these the chief are, that in the normal position of the flexure its orifice is turned away from the small intestine, is fairly movable, flaccid, and its upper margin occasionally covers it like a valve.

Considering the peculiar combination of conditions which, in the case related, led to the patency of the opening, and thus directly contributed to the occurrence of the hernia, it is not surprising that details of no authentic case of hernia into the fossa intersigmoidea have before been published.

Sir William Lawrence met with a case, as would appear from the following sentence (*On Ruptures*, p. 630). "Sacs are sometimes formed in these processes of peritoneum, which consist of two layers; as the mesentery, meso-colon, the process belonging to the ligamentum latum uteri. Of the two latter, I have myself seen examples." I have been unable to find any published details of the case to which he refers.

De Haen (*Ratio Medendi*, Pars xi; *De Ileo Morbo*, p. 103) has described a case of hernia of intestine through an opening in the meso-sigmoidea, of which Treitz (*Op. cit.*, p. 106) gives the following notice: "In the year 1766, he observed, in a woman aged 57, a hernia into the meso-colon of the sigmoid flexure, in which a loop of the lower part of the ileum was incarcerated. Almost periodical abdominal pains, of varying intensity, lasted for three years; with them, tympanitis was always predominant. Finally, the whole cycle of incarceration-symptoms set in with such severity, that death followed within five days."

De Haen refers to three drawings representing portions of the abdominal viscera detached from the body, but gives no descriptive details of the parts involved in the strangulation. The drawings, which are fragmentary and ill arranged, certainly show the intestine protruding through an opening in the upper layer of the meso-sigmoidea—that is, the layer passing upwards and towards the middle line, and not the lower or under layer, in which the fossa intersigmoidea is situated; we must, therefore, accept this to have been the case, whatever doubts, based on likelihood, we may have to the contrary.

It would be useless to attempt to frame rules for the diagnosis of this form of hernia, which the next case would falsify; but it may be remarked that the symptoms probably would resemble those of acute internal strangulation, with the additional circumstance that localised pain and tenderness, if present, would be in the left iliac region, and not in the right, as is commonly the case in strangulation from bands and diverticula, etc.

The coincidence that, both in the case related above and in De Haen's case, the patient was periodically subject to abdominal pains, associated in the first with a constricting sensation, in the second with tympanites, may be noted as, perhaps, indicating that the intestine had not unfrequently slipped into the opening before the fatal incarceration took place. I am indebted to Mr. T. Smith for his kind permission to publish the case.

### CUCAINE IN ACUTE AFFECTIONS OF THE UPPER RESPIRATORY PASSAGES.

By J. STRAHAN, M.D.,  
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THE fact that Jellinek has produced complete anæsthesia of the larynx by the application of cocaine, points to a vast field of usefulness for that drug, not hitherto explored. To secure anæsthesia of the larynx, epiglottis, palate, and pharynx, must prove an invaluable boon to the profession and the patient, in the immediate future. Even the action of carbolic lotion or lozenge in throat-affections, as an anæsthetic, is by no means to be despised; so that we can easily imagine the comfort, relief of pain, and even avoidance of danger to life in cases of spasm of the glottis, likely to result from the use of cocaine. It has been used with perfect success in operative procedures about the larynx, but has not yet been tried for either diphtheria or croup. It is obvious what a boon the addition of cocaine applications would be to any plan of treatment. It could be applied either by ordinary swabbing with a four per cent. solution, or by insufflation with the dry powder; or the solution could be sprayed when we wished to reach far down. Even if the applications had to be made as often as every half-hour, for a little, the trouble would be as nothing compared with the ease and safety of the patient. In case of necessity, the nurse could apply it perfectly well in any form, if taught. The addition of a couple of drops of chloroform (a solvent of cocaine), to the ounce, would prevent the formation of fungus in the solution, as it does in the case of solutions of atropia, morphia, strychnia, tartarated antimony, and indeed all solutions usually spoiled by fungi. This would conduce to economy, as the solution without any preservative soon spoils, and is then liable to excite acute inflammation in mucous membranes instead of curing it. Of course the chloroform must be dissolved in the alkaloidal solution, by agitation in a bottle not more than three quarters full. This amount of chloroform causes no irritation, even in the eye, as I constantly use preserved solution of atropia, without causing the slightest pain.

We have now evidence that a four per cent. solution of cocaine painted on the nasal mucous membrane, besides causing anæsthesia, contracts the capillaries, drives out the blood, and causes a membrane swollen and red to become shrunken and pale. In coryza, even where the nares are obstructed by swelling, a strip of lint, soaked in the solution and pushed into the anterior nares, speedily removes the swelling, permits the passage of the breath, and, repeated once or twice, even permanently cures the disease. From these considerations, it seems to me that cocaine is destined to become an indispensable aid in all acute inflammatory diseases of the upper respiratory passages. In laryngitis, croup, diphtheria, scald of the larynx, simple or reflex spasm of the glottis, and even in chronic laryngeal affections, life often depends on the absence of fits of spasm; and the only remedy, when it occurs often enough or severely enough to threaten life, is tracheotomy. If cocaine, by inducing complete anæsthesia of the parts, prevents these spasms even in part, it will be an invaluable addition to the treatment of these diseases. We have some evidence that it will do so, from the fact that the imperfect means on which we have hitherto had to rely for anæsthetising the larynx, pharynx, etc.—namely, bromides and chloral—do very markedly diminish the tendency to spasm of the glottis in croup, for instance. For that reason among others, I am of opinion that a combination of bromide of potassium and hydrate of chloral constitutes the very best treatment for croup—at least, so far as systemic remedies go. The bromide diminishes the number and intensity of the laryngeal spasms. The chloral, in addition, acts as perhaps the most powerful antiphlogistic we have in such cases; it greatly reduces arterial blood-pressure, diminishes body-temperature, and acts as a powerful germicide, both generally and locally. The local use of cocaine, and the constant inhalation of some efficient antiseptic vapour, such as that of eucalyptus-oil, or of turpentine and tar, in addition to the internal treatment described, and with proper attention to alimentation, would seem to me to be an almost perfect therapeutic plan for diphtheria, croup, and many other diseases of the respiratory passages.

### RESULT OF ENTEROTOMY IN A CASE OF INTESTINAL OBSTRUCTION.

By W. W. WAGSTAFFE, F.R.C.S., Sevenoaks.

I HAVE recently become acquainted with the termination of a case, in which I opened the intestine in the right groin for intestinal obstruction, ten years ago, and which was reported at the time; and I think it a duty to complete the narration, when possible, of any case which has been of sufficient importance to attract attention.

Shortly given, the case was one of intestinal obstruction in a woman, aged 30, and the obstruction appeared to be caused by a pedunculated growth, springing from about the left sacro-iliac joint. But the hand could be passed into the bowel, and found the mucous membrane involved to some extent, though the real seat of obstruction was above the reach of the hand; for the bowel was empty immediately above the nodular mass, which could be explored by the hand passed into the rectum. Complete obstruction had lasted seventeen days, and the patient was emaciated and sinking, with the ordinary symptoms of obstruction, so I opened the bowel in the right groin, and relief immediately followed. She left St. Thomas's Hospital about a month later, with an artificial anus in the groin, but the evacuation of the contents of the bowel was taking place to some extent from the rectum.

Since that time, I have lost sight of her; but I have occasionally heard of the patient from Dr. Coates, an old pupil, under whose care she has been from time to time. She improved greatly in health and strength; and the opening in the groin, which gave some trouble at first from protrusion of the gut, gradually diminished in size, and was not a serious inconvenience to her. The motions were passed more and more by the rectum until very little escaped from the opening in the groin. She was able to undertake housework, and could walk three or four miles without trouble, and she felt that she was in no way seriously affected by the artificial anus.

Things remained thus for about two-and-a-half years, when I learn that she died from peritonitis, after about a week's illness. I hear that this peritonitis was not associated with further obstruction; but, unfortunately, no *post mortem* examination was made.

The case is, therefore, incomplete; but, such as it is, it is worth while recording for the evidence it gives of more than two years' comfort and life by operation for intestinal obstruction, which was threatening to be fatal. The cause of the obstruction was not one to be removed by ordinary means, and the result as regards relief was as much as, or even more, than might have been expected. It differed from those cases of twist, displacement, invagination, band, etc., where the mechanical obstruction can be removed by operation, and it was only the urgent symptoms due to the blockage that could be relieved. Yet, with relief to these, by opening freely above the obstruction, there was gradual restoration of the natural course of the evacuations; and the patient passed two years of comfort, and was able to perform her household duties and walk without inconvenience. It is also of interest to notice that, after a time, the opening in the groin gave rise to little inconvenience, either from protrusion or from the passage of fæces, and this is a matter of great practical importance to a patient who has to be actively employed.

In the absence of *post mortem* examination, I feel hesitation now in recording the case as one of opening the small intestine, as I would mean by enterotomy; but my impression at the time of operation was that the small intestine was opened, and not any part of the large intestine, which, I am ready to allow, might as easily have occupied the right side of the abdomen towards the groin.

### THE TREATMENT OF BILHARZIA DISEASE.

By P. SONSINO, M.D., Pisa, Italy.

No doubt Bilharzia infects indifferently robust and feeble subjects; and subjects with Bilharzia, in some cases, do not appear to suffer much, as Dr. John Harley said in the recent discussion at the Royal Medical and Chirurgical Society (May 26th); but when the infection is of long standing, and the number of the worms is great, we have then always signs of anæmia and feebleness, and then it becomes necessary to sustain the organism with tonics, iron, and good nourishment, as recommended by Dr. Cobbold. This last treatment certainly does not prevent one from catching the worm, but it is required by the bad state of the patient, in consequence of the infection.

I know that, in Egypt, there are now some practitioners who profess to cure hæmaturia arising from Bilharzia with medicated injections