recti muscles. On the day before she died she vomited blood largely, which she continued to do in lesser quantities; blood also passing from the bowels, until she died, death being clearly the immediate consequence of the loss of blood.

On examination of the body after death, a large deeply excavated ulcer was found in the posterior wall of the lesser curvature of the stomach. The walls of the ulcer were very much thickened, but, as I believe, not with malignant deposit, but simply an interstitial deposit of lymph, the result of a permanent condition of low inflammatory action. The other organs were all healthy, merely blanched by reason of the manner of death.

REMARKS. The point of interest in this case, consists in the interval of four years of perfect health occurring between the two periods of disease which I have described. I think the evidence well nigh complete, that this young woman suffered from ulceration of the stomach eight years ago. I think there can be little doubt that the ulcer under which she then suffered cicatrised, for it would be difficult to believe that she continued for four years in the enjoyment of good health, free from stomach derangement, with all the time an open ulcer in her stomach. Then, from some cause, acting on her general health, probably her sedentary life and confinement to heated rooms, as an attendant on an invalid, the old cicatrix became the seat of fresh ulceration which proceeded unchecked until its termination in fatal hæmorrhage. The autopsy sufficiently explained the absence of objective evidence of disease, as the thickened part of the stomach was overlapped by a portion of the liver.

FATAL HÆMORRHAGE INTO AN OLD OVARIAN CYST.

By JOHN SODEN, Esq., F.R.C.S., Surgeon to the Bath United Hospital.

[Read at the Meeting of the Bath and Bristol Branch, Nov. 20, 1856.]

A LADY, aged 48, of healthful appearance, and of large well formed figure, on reaching her home after a long walk on the evening of April 19th last, was seized with such severe pain in the left side that with difficulty she entered her house. After a short time, the pain subsided in a degree, but returned with increased violence at the tea table. Mrs. A. was taken to bed, and various remedies were applied for her relief, but with so little benefit, that about midnight I was sent for.

I found the patient in bed, with a distressed and anxious countenance, rather pale, and disposed to be cold; the pulse was small and feeble. She complained of intense suffering in the left hypochondriac region just over the large end of the stomach; there was acute sensibility to the touch, which seemed to radiate from one central point, in the situation indicated, with diminishing severity, over the surface of the abdomen. The character of the pain was that of peritonitis, and not of hysteria.

I found that sickness had appeared at the onset of the attack. The patient had three times vomited; but the ejected matters not having been kept, I could not verify the presence of blood in them, which the description of the servant led me to suppose they contained. It was evident that some serious condition was present: perforating ulcer, ileus, internal strangulation, all passed before my mind; but the state of the patient did not well correspond with the symptoms of any of these lesions. I was obliged to content myself with prescribing for the symptoms as I found them, and awaiting the further development of the case.

I ordered the local application of warmth, chloroform, and laudanum, and ultimately a blister; internally, repeated doses of opium, till relief should be obtained from the pain; and the occasional exhibition of stimulants while the prostration lasted.

On the following morning, no marked change presented itself; the pain was certainly lessened, and the patient herself was calmed by the influence of the opium; but the tenderness was still there, rendering minute examination impossible; and the abdomen was more generally sensitive, and becoming tympanitic. No febrile reaction had supervened; the patient complained of thirst; but the pulse was not rapid, nor the skin hot. I attributed this generally favourable state to the effect of the opium, for I could not hope that any impression had been made upon the original disorder. The same treatment was continued, with the addition of small doses of calomel with the opium.

On the next day (the 22nd), Mrs. A. showed more signs of rallying, and the local symptoms were of less intensity.

April 23rd. She was not so well: return of sickness, increased tympanitis, and increased prostration. Dr. Davies joined me in attendance upon Mrs. A. Time had now set at rest all the suggestions that had at the first moment— but none of them satisfactorily—presented themselves, as to the cause; but it did not more clearly demonstrate the true nature of the case. The sickness was more frequent, and the tympanitis had become considerable. The pain was more diffused, and felt more round the lower part of the abdomen; but it still maintained most strongly its original seat in the left hypochondrium. The treatment admitted but of little variation: turpentine enemata were tried; the blisters were repeated, with subsequent dressings of mercurial ointment; opium and prussic acid were administered, as the symptoms demanded; and we were led by unmistakable signs to give constant support and stimulus.

From this date (April 23rd), the case went on with great fluctuation, but no change in the character of the symptoms. For a day or two, a steady improvement would be noticeable; the patient's strength would seem to rally; her pulse to become slower and fuller; she would speak cheerfully, and require less constant supply of stimulants; a relapse would then suddenly and unaccountably take place, sickness would return (the matters vomited now undoubtedly containing blood), the pulse quicken, and the powers of life would drop to an alarming state of prostration.

It is unnecessary to relate the details of the case from day to day.

The fluctuations between efforts to rally—sufficient to encourage some hope almost to the last—and the recurrence of the unfavourable symptoms, continued to the 1st of May, when Mrs. A. sank exhausted, on the thirteenth day of her illness.

POST MORTEM EXAMINATION. The abdomen was tympanitic to an extreme degree; on opening the cavity, traces of peritonitis, with recently effused lymph, presented themselves pretty generally, but most abundantly about the region indicated by the seat of the pain. The stomach was removed, and examined. Its lining membrane presented signs of congestion, but nothing remarkable; nor were any appearances found to account for the severe symptoms that had been referred to its locality during life. The examination of the bowels being continued, on raising them, a large dark mass was discovered in the right pelvic region; the intestines were glued to its surface, and had imbibed some of the dark colour of the tumour. The mass was removed, and found to be a large cyst about the size of a child's head of a year old, filled with blood, and occupying the situation of the right ovary. The blood was dark, and partially coagulated; its effusion in the first instance was no doubt the cause of the symptoms, and their marked fluctuation may be attributed to corresponding fresh outbursts of the hæmorrhage. The uterus with the remaining appendages and the rest of the body were perfectly healthy.

REMARKS. The narration of the case and of the *post mortem* appearances may possibly suggest that, among the various conjectures on the nature of the disease, the non-

recognition of internal hæmorrhage does not say much for the diagnostic acumen of the medical attendant. I must even confess that a satisfactory relation can be established between the symptoms during life and the appearances after death.

There is, however, a peculiarity about the case that will fairly excuse the apparent want of true induction; and the point was so marked, and is so important, that it has chiefly influenced me in bringing the case before the notice of the society. I allude to the *sole* reference at the commencement, and during the early part of the attack, of all the patient's intense sufferings, to the seat of the large end of the stomach. Coupled with this guide was the frequent vomiting of suspected blood, which suspicion was subsequently strengthened by the circumstance undoubtedly occurring. If hæmorrhage had taken place in the first instance near the ostensible seat of complaint, its presence in any portion of the alimentary canal would soon have manifested itself, and any effusion into the general cavity would have afforded signs that could not have been overlooked; but here it took place into a circumscribed cavity, the existence of which could not be suspected. In this manner not only was the presence of the hæmorrhage masked from examination, but its usual symptoms were probably disguised by the pressure of the walls of the cyst checking the flow of blood before it induced the syncope characteristic of its loss.

Frequent and various as the instances are of sympathy between different organs of the body arising from the morbid condition of any one of them, the present case stands alone in my own experience in the suddenness and completeness of the development of the reflex sensations. It is inexplicable by any known relation of nervous communication. I can scarcely suggest a cause in the probable immediate influence of the lesion upon the peritoneum, and of the transference of the sympathetic effects by this structure, but in what mysterious manner, it is impossible to surmise. I am fortunately able to complete the statement of the case, by narrating the early history of the cyst.

When 18 years of age, this poor lady was attended by my father for ovarian dropsy; she was also taken by her friends for advice to London, and returned with the recommendation that tapping should be performed. Mr. Soden did not think the symptoms sufficiently urgent to justify the operation, and advised its postponement. Soon afterwards, the cyst relieved itself by bursting through the bladder; and from that time to the present attack, Mrs. A. never felt any sensation to remind her of the existence of her former complaint. She married soon after her recovery, resided some years in a tropical climate, and had several children. The cyst appears to have contracted to a certain point, then to have remained unclosed but dormant for thirty years, and finally, to have occasioned death by the sudden effusion of blood into its cavity.

PHRENIC HERNIA.

By HENRY DUNCALFF, Esq., M.R.C.S., West Bromwich.

[Read before the Queen's College Médico-Chirurgical Society, Birmingham.]

By the permission of my friend Mr. Charles Male, I have the pleasure of bringing before the Society the history of a case of phrenic hernia—an occurrence rare in practice, obscure in diagnosis, perplexing to the medical attendant, and usually fatal to the subjects of such disease. I shall offer a few remarks on the structure of the diaphragm itself, the parts of it through which hernia is likely to be protruded, and the causes which tend to produce such displacement; and I shall avail myself of the information I have derived from different authors to illustrate the capability of the occurrence of hernia through different portions of the diaphragm.

It is well known to us that hernia, for the most part

occurs through some one or more of those natural openings which render the abdominal walls weaker in those parts than in others where no such openings exist; that the inguinal canals, crural rings, and umbilicus, are most prone to such an occurrence; or that certain malformations sometimes exist permitting the abnormal state of hernia—such as arrests of development, and deficiency of the muscular walls. To exemplify this, I may call your attention to the case of hernia of the heart, given at the last meeting of this society by Mr. Pemberton, where the lower portion of the sternum was undeveloped. Injuries or diseases, as abscess, may also cause weakness or perforation of the muscular resisting walls, and predispose to hernia. Of the causes which immediately lead to hernia, violent bodily exertion is the most usual: the viscera being much compressed by the surrounding muscles, the long continued straining, which such pressure necessitates, overcomes the resisting force, and permits the natural openings to be stretched to a degree sufficient to give exit to some of the viscera, which then constitute a hernial protrusion.

That strong muscular structure, the diaphragm, would seem, on first inspection, with its possession of tendon and osseous connexions, to be incapable of permitting the protrusion of a viscus, unless from direct injury, or from the want of due development; but as there exist certain apertures, so is there a certain amount of weakness, and a possibility of the occurrence of hernia. Anteriorly, immediately behind the xiphoid cartilage, the diaphragm arises by two weak fasciculi, separated by a line of cellular tissue: in some people it is developed in such unusual strength as considerably to depress the cartilage itself, whilst in others the fibres are altogether absent, and a deficiency of structure exists; the interval is then closed by cellular tissue, and between these fasciculi when present, and the lateral fibres, there exists a triangular and usually well marked space, in which the pleura and peritoneum are connected by cellular tissue, and through which the terminating branches of the internal mammary vessels pass to the parietes of the abdomen. Morgagni mentions this portion as particularly liable to such an occurrence as hernia:—"Some of the abdominal viscera," he says, "have been found in the thorax by the fibres of the diaphragm being torn asunder; and this accident is most likely to occur betwixt those fibres which proceed from the ensiform cartilage and the neighbouring fibres." Andral, in his *Clinique Médicale*, relates an instance where an empyema perforated through this portion, depressing the peritoneum and opening into the cavity of the abdomen. Mohl quotes a similar instance, and draws a comparison between the triangular fibres of the anterior and those of the posterior origin of the diaphragm, supporting his views of concentric development by citing two cases where empyema descended near the vertebral column behind the peritoneum and along the psoas muscle, with abscesses and fistulous openings down the thigh. The reflexion of peritoneum prevents in a great measure the protrusion of the abdominal viscera through the aortic opening into the thorax; so that the descent of a fluid from the pleura into the abdomen would be easier than the ascent of a viscus from the latter cavity into the chest. The opening for the vena cava is situated at the back part of the right tendon, and is nearly fixed in its position; its margins are tendinous, and fasciculi cross at right angles, somewhat similar to the tendinous distribution around the inguinal canals; such fasciculous prolongation being attached to and made continuous with the coat of the vessel, as to form a tendinous valvular passage. This arrangement of fibres serves a double purpose; it prevents the compression of the vein during the action of the muscle; and being intimately connected with the vessel, it will not easily allow of any ascent into the thorax. The esophageal opening, imperfectly fixed, directed obliquely downwards and backwards, lies immediately behind the central tendon, and is separated from the aortic passage by decussating muscular fibres. This peculiar arrangement is supposed by some