directly over the stitches or strapping; indeed, it is one of the merits of the sponge that it can be placed over any other contrivance. If strips of plaster be needed to relieve tension, they should be long—say from over the shoulder to near the groin—when the slight moisture of the sponge will not spoil their adhesion. A few neat and firm turns of wide, thin, smooth bandage are better than a large number in several ways, especially in the medication or antiseptication (may I say?) of the sponge. During the few years I have used sponge-dressing, I have not had a single instance of early recurrent or later reactionary, or of secondary hæmorrhage. I scarcely ever tie a vessel. One or two may be twisted or compressed a few minutes by spring-forceps; but patient pressure for a time with relays of well-wrung sponges within the wound rarely fails to stop primary hæmorrhage.

In the deep excision of cancers from mucous outlets—a branch of surgery in which it falls to my lot to have much experience—I should be much at a loss if I had not at hand my large sponge with its antiseptic, styptic, compressing, and draining properties. A few months ago, I removed a cancerous penis as far down as the triangular ligament in the perinæum (splitting the scrotum to do so, the man preferring to retain the testes); a sponge with a catheter passed through its centre, stopped the bleeding, dressed the wound, and kept it antiseptic, all at once.

I need not detail every operation in which sponge-dressing is of benefit; I will briefly refer to a few only. I have just had striking evidence of its utility in trephining. Twenty-one days ago, a young man was brought into the Queen's Hospital with a cur, and therefore a comminuted and depressed, fracture of the right parietal bone, caused by a falling slate. Brain was oozing out, and as much as would fill a walnut-shell escaped. Left hemiplegia was marked, but not complete. I trephined, and removed numerous fragments and a bit of felt hat, leaving a gap two inches long and an inch and a half wide. The soft parts were very loosely adjusted, and well covered and overlapped by a soft sponge kept constantly moist with terebene, and fixed by one strip of adhesive plaster twenty inches long and three inches wide. On this, the fourteenth day, his state could not be more favourable.

In wounds generally, in compound fractures, after operations for caries or necrosis, after opening abscesses, superficial or deep, the sponge-dressing is of ready utility.

After operations for hernia, a large antiseptic sponge under a few turns of spica bandage forms an ideal dressing, which at once gives elastic-truss pressure, cleanliness, drainage, and antisepticity.

After lithotomy, when there is free bleeding, there is no mechanism which equals in accessibility, simplicity, and efficiency an elongated bit of sponge, a kind of sponge-tent, passed by the side of an elastic tube or catheter. I have now in the hospital a man, aged 75, who is convalescent from lithotomy. The stone was very large, the incision necessarily free, the hæmorrhage great, and the patient naturally feeble; after a few spoonfuls of iced water, I put a large elastic catheter through the wound, and by its side a sponge-tent of the size of my finger. In a few moments, the bleeding ceased, not to return, the urine shortly came through the catheter. All went on well, save that severe signs of senile exhaustion appeared after seven or eight days; these were successfully checked by repeated alteration in position, and even partially clothing the patient: the risk of a permanent fistula, from getting up too soon, seemed better than death. In lithotomy wounds, as elsewhere when the sponge is put within the wound, it speedily creeps into every corner, crevice, or recess from which blood may flow. It is on this principle that an ordinary uterine sponge-tent, passed along the floor of the nose, as recorded by a surgeon whose name I forget, checks epistaxis immediately, without time, trouble, or apparatus.

In the later stages of injuries and operations, and in surface lesions generally, I find terebene a most useful dressing, pure or mixed with water. It is an excellent addition to the sponge-dressing, which it readily keeps moist and soft. Occasionally, however, if used with firm pressure and under many layers of bandage, it causes a little pimply redness of the skin; this is of slight importance, as it never leads to erysipelas or deeper inflammation. The remarkable experience of Mr. Waddy of Gloucester, who used only one dressing in operations, with frequent additions of pure terebene, deserves more attention than has been given to it.

Terebene, which was introduced by a well-known officer of health, Dr. F. T. Bond, is not poisonous internally; it is astringent and hæmostatic, but not escharotic. It is a powerful disinfectant; as a deodorant, it is without an equal: it is something more than a deodorant, it diffuses an agreeable and soothing odour. It may be used without diluting, mixing, shaking, stirring, or other preparation, or it may be mixed with water, and very readily with olive oil. With a third or half of olive-oil, it forms a surface-dressing of very general utility. Lint and tow absorb it readily. For burns, ulcerations, sloughing conditions, the

various gangrenes and open cancers, terebene does all that a dressing can do, and entirely removes all ill odour from the parts from the room. Terebene is a very suitable dressing for cavities that require to be temporarily stuffed, as after the removal of carious or necrosed bone. Its non-poisonous character and its fragrance especially adapt it as a dressing after partial or complete removal of the upper jaw.

To return for a moment to the subject of sponge-dressings. Now and then, under exceptional circumstances, it is probable that surgeons have left a sponge in a surgical dressing. Since the above notes were put together, I have seen the surgical application of sponges recommended in an American serial. Quite recently, an able surgeon, Mr. Chiene, has advocated sponges as a cheapening adjunct to the antiseptic method. I simply desire to point out the advantages of a general and systematic use of constantly moist antiseptic sponges in checking and preventing hæmorrhage, in adjusting, uniting, cleaning, draining, antiseptising, and protecting wounds.

ON EFFUSION INTO THE PERITONEAL CAVITY ANALOGOUS TO LATENT PLEURISY.*

By JOHN SMITH, M.D.,

Physician to the Dumfries and Galloway Royal Infirmary.

IN the BRITISH MEDICAL JOURNAL of September 16th, 1876, Dr. George Johnson published four cases of serous effusion into the cavity of the peritoneum, which he characterised as a class of the affection which, so far as he was aware, had not been recorded by writers on the practice of physic. He also considered that they bore by their peculiarity an analogy to cases of so-called latent pleurisy, in which we find a copious pleuritic effusion without a previous history of, and unaccompanied by, pain or febrile disorder. I have to record two cases which have come under my treatment, and which appear to bear the same analogy as those referred to by Dr. Johnson.

CASE I.—Jane M., aged 22, was admitted to the Dumfries and Galloway Royal Infirmary on May 15th, 1875. She was unmarried, and had always been healthy until about three months before, when she contracted typhoid fever, which lasted about four weeks. Three weeks or so after rising from the fever, and about a week after she had menstruated, she observed swelling in the lower part of the belly, which increased rapidly. She had no pain or uneasiness, and pressure or handling did not cause her any annoyance. On examination, the patient lying on her back, the abdomen was found much enlarged, having a broad flattened appearance, and bulging considerably and equally in both flanks. Percussion elicited resonance in the anterior and upper part, and dullness in the sides. Change of position altered the percussion-sound, being dull at the most dependent part and resonant at the upper. Palpation could detect no solid tumour, and the fluid wave was quite easily seen and felt. The heart, lungs, kidneys, and liver were, so far as could be ascertained, healthy and acting normally. There was no increase of temperature, and the pulse was natural.

After consultation with my colleagues, this was considered a case of ascites, and she was ordered hydragogue cathartics and diuretics. After giving these a fair trial without apparent benefit, she was ordered syrup of the iodide of iron and full diet, and to have gentle exercise. A short time afterwards, she commenced to improve; and, about four weeks after the supportive treatment began, she left the house much better in health, with the abdomen much reduced in size, but still containing a considerable amount of effused fluid. Several months after she left the Infirmary, her medical attendant wrote concerning her, that the abdominal enlargement had entirely disappeared.

CASE II.—Jane A., aged 28, consulted me in July 1875 for a swelling of the abdomen, which she had observed about three weeks previous to my seeing her. She had several times within the last twelve months observed a similar swelling immediately after her menstrual period; but it never became so extensive, and always went away. She had always been otherwise healthy, and menstruated regularly. From the commencement of the swelling until recently, she had not experienced the slightest amount of pain or uneasiness. Two or three days previously, however, she began to have a distensive feeling, which had gradually increased to severe pain; and her breathing had been rather difficult. The abdomen was much distended, of a rounded symmetrical form, resonant on percussion at the anterior and upper part, and quite dull at the lower and lateral. On altering the position of the patient, the bulging and dullness changed to the most dependent part; and the level of the fluid could be distinctly made out in whatever position she

* Read at the Autumnal Meeting of the Border Counties Branch.

was placed. The fluctuation-wave was easily felt. The heart and lungs were healthy; and the liver, so far as could be ascertained, was natural in size and action. There was no trace of jaundice; the urine was natural in appearance and free from albumen; the pulse was 102, and the temperature normal. Owing to the severity of the symptoms, I suggested tapping as the surest and most expeditious way of giving relief; but, this being objected to, I ordered forty grains of the compound jalap powder to be given. On visiting my patient on the following morning, I found her somewhat relieved; the bowels had acted very freely, and the urine was more abundant. I then ordered the following diuretic.

Rx Potassæ acetatis ʒii; spiritûs ætheris nitrosi 3vi; syrûpi scillæ ʒi; decocti scoparii q. s. ad ʒvi. A teaspoonful in cream of tartar water to be given every six hours.

Under this treatment, she gradually improved; the pain ceased, and the abdominal enlargement speedily lessened. After continuing the diuretic for about a fortnight, I substituted for it ten grains of the carbonate of iron (saccharated), to be taken three times daily after meals, and ten-minim doses of the tincture of digitalis thrice daily, an hour before meals. The patient was also ordered good nourishment, and to have gentle open-air exercise. Within three months from the commencement of my treatment, no ascites could be detected; and, although she has frequently since consulted me for dyspepsia and general debility, no effusion into the peritoneum has returned.

The accumulation of serum in the peritoneal cavity is generally understood to depend on one of two causes—first, and most commonly, on some obstruction to the return of blood from the peritoneal blood-vessels; and second, on some modification of the action of these blood-vessels, and probably of the lymphatics contained in the peritoneal membrane. That the cases which Dr. Johnson has published, and those that I have here recorded, approach in their nature to the second class, cannot be doubted; but the almost total want of evidence of inflammatory or tubercular action characterises them as a very rare or previously unrecognised affection. Several cases of latent pleurisy have come under my notice—cases in which the first symptom of the disease was the discomfort occasioned by the presence of effused fluid, and into which the most searching inquiry from the patient could elicit nothing betokening pleuritic pain or other symptoms of pleurisy. From what I have observed in these cases and the analogous cases of peritoneal effusion, I am led to think that the accumulation is rather due to a peculiar state of the constitution, whereby the power of absorption is abridged, while the progress of exhalation is unchecked, than to any local cause. Dr. Johnson has applied to the cases he has recorded the term subinflammatory effusions, attributing them to a subinflammatory process of a local nature. As a type of what may be termed subinflammatory effusions, we may instance the common complaint of hydrocele, which is purely a local affection, the result of some change in the tunica vaginalis testis, whereby the proper balance of power between absorption and secretion is lost. In such cases, no constitutional treatment will restore to that membrane its normal equilibrium of action; and nothing short of local interference will suffice to effect a cure, which fact goes far to prove their local origin. In the two instances I have specified, from the history of the cases, both occurring at a time when the constitution was enfeebled, the one after fever and the other after menstruation, and from the beneficial results of constitutional treatment, I am led to the conclusion that their origin was more from the loss of constitutional than of local power. I am persuaded that, as in cases of hydrocele no constitutional treatment would have the necessary topical effect, so in cases similar to those I have here described no local interference would be effectual in setting up and maintaining normal action.

Believing with Dr. Johnson that it is highly important, for correct diagnosis and successful treatment, that such cases should be distinguished, I have placed my experience before the profession, with the hope that by so doing others may be enabled to recognise and successfully treat similar cases.

SURGICAL MEMORANDA.

ANTISEPTIC SURGERY.

DR. THOMAS'S contribution to the statistics of antiseptic surgery is welcome; but I must decline to allow him to manipulate my table so as best to suit his special pleading. My statistics consisted of fifty-five amputations and excisions, not of thirty-five amputations only. It is true I included four amputations of the forearm, inclusive of one at the elbow-joint, to which Dr. Thomas takes exception; but, as the latter proved fatal, I thought it best to include it. The table also contained a

case of removal of a loose cartilage from the knee-joint, and an operation for ununited fracture of the forearm, because such operations are prone to some of the evils resulting from septicity; and I must, therefore, request to be allowed to reconstruct my table as consisting of fifty-five operations, with five deaths, showing a mortality of 9.09 per cent., and not, as given by Dr. Thomas, of thirty-five amputations with four deaths, showing a mortality of 11.42. It is manifest, however, that Dr. Thomas extracts the amputations alone in order to compare them with the more favourable results obtained by one of the surgeons in the Glasgow Infirmary styled "F.", during the same period, who had thirty amputations, with one death, giving a mortality of 3.22 per cent.

Having made his selection and added his contribution from the Glasgow Infirmary, Dr. Thomas proceeds to remark: "A glance at these tables will show the great superiority, so far as results are concerned, of Mr. Lister's method over Mr. Bradley's."

Similarly, I will take the liberty of remarking that, if Dr. Thomas will turn to the *St. Bartholomew's Hospital Reports* for 1874, he will find sixteen consecutive amputations tabulated by Mr. Callender, without a single death, and, the following year, forty-four consecutive amputations, with but one death, which should equally clearly convince him of the great superiority of Callender's method over Lister's: a conviction which must be distressing to Dr. Thomas, since, by parity of reasoning, he must admit that this superiority is due to open dressing and avoidance of Listerism.

I did not, however, furnish my statistics with the intention of proving that I had the smallest percentage of deaths, but for the purpose of seeing how far the deaths were due to septic, and therefore removable, causes. I found that the five deaths were respectively due to typhoid fever, hæmorrhage, diathetic causes, shock, and mental depression; and, unless Dr. Thomas is prepared to maintain that Listerism is protective against such ills as these, I cannot admit that an honest examination of the two tables "shows the great superiority of Mr. Lister's method" over my own.

This part of my argument, which is the very gist of the whole matter, Dr. Thomas completely ignores, and goes on with his comparison as though nothing of the kind had been said.

S. MESSENGER BRADLEY, Manchester.

CATGUT LIGATURE.

IN the JOURNAL for March 23rd, Mr. Messenger Bradley refers to a case in which he tied the hind (third?) part of the right subclavian artery with a catgut ligature, and, from the issue of this case, he arrives at conclusions respecting the safety of that material which, I think, ought not to pass without some comment.

"The patient," he says, "died of cardiac disease on the eighth day following, and, on examination, it was found that the ligature had, with the exception of a short interval about one line in length, completely cut its way through all the coats of the vessel. There was no occlusion whatever of the artery, nor even any coagulum, so that doubtless the hæmorrhage would have been very fierce and uncontrollable had the man survived longer."

This is a very singular statement. If the condition of the artery were really as described, how is it that uncontrollable and probably fatal hæmorrhage did not take place during life? There was nothing whatever to prevent it. Mr. Bradley then says he thinks the case "goes far towards establishing the correctness of the opinion that catgut is an unfit agent for securing arteries in their continuity". In what way does it show that the condition of the artery would not have been as bad, or even probably worse, if silk had been used instead of catgut?

Next, we are told that "catgut is efficient and safe in deligating the vessels severed in amputation, for the reason that, the limb being removed, less blood is sent down the divided arteries, and so but little stress comes upon the encircling ligature (it is otherwise when a ligature is applied for the cure of aneurism), and, as a consequence of this, it yields, and so, permitting the re-establishment of the stream, prevents the formation of a coagulum". Where is the evidence that there is less stress upon the ligature after amputation? May it not be argued with more plausibility that, after ligature for aneurism, the blood speedily becomes diverted into enlarging collateral channels, and the stress is, therefore, diminished; whereas, after amputation, there is no necessity for this diversion, and, during the critical period, the full impulse continues to fall upon the point ligatured? At all events, in this case, it seems impossible that the ligature could have yielded so as to permit the re-establishment of the stream without causing fatal hæmorrhage, if it had, as we are told, completely cut through all the coats of the vessel, with the exception of a short interval.