ASPIRATION OF MAMMARY CANCER DURING REMOVAL.

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SOME years ago¹ the idea occurred to me of endeavouring to drain the infective juices out of the surrounding tissues by aspiration of malignant tumours of the breast as an accessory to their removal. Through the courteous co-operation of Professor Ogston, of Aberdeen, I have had the opportunity of putting the plan in practice in the following case.

G. McK., 48, unmarried; sarcoma of left breast, fourteen months' growth; recently commenced to fungate and bleed, and grow rapidly. Tumour size of orange; a gland felt in axilla; none to be felt above clavicle. The operation was performed in the Royal Infirmary, Aberdeen, in the ordinary thorough method by Dr. Ogston, who removed the tumour and fat and glands from the axilla in one mass. Whilst being anaesthetised I fitted over the breast a suction apparatus, which was extemporised out of an eight-ounce I. R. enema bottle with the wide end cut off, supported internally by another I. R. cone cut out of the bulb of an ordinary seamless enema syringe, and furnished round the cut edge with

a. 8-ounce I. R. enema bottle, the fundus cut away; b. nozzle connected with vacuum bottle of aspirator by stout rubber tubing; c. thin para rubber band attached to lip by cement; d. portion of bulb of "seamless" syringe cut to fit the tumour and placed inside a.

a lip of thin pure rubber fixed on by bicycle cement. On connection with the vacuum bottle of an ordinary aspirator, this sucker adhered perfectly, the exhaustion being maintained by occasional pumping during the operation, which was completed, under complete antiseptic and aseptic precautions, in the usual way, the patient making an excellent recovery without a bad symptom. About an ounce of sanguineous fluid flowed into the bottle.

Theoretically, the idea of causing a backward current in the lymphatic spaces of a breast affected with malignant disease and its surroundings prior to and during removal, has much to recommend it. If we could produce a minus pressure here it should lessen the risk of "soiling the wound" with cancerous juices,² as Watson Cheyne expresses it, and might still further diminish the proportion of recurrences, already so much reduced by the "thorough" method of operating.

Practically, this case demonstrates that the method can be readily applied without in any way hindering the operation or adding to its gravity. I hope that others will try it till sufficient cases are on record to be able to judge whether it can increase the proportion of permanent cures.

In regard to the technique: in this case there was already a breach of surface, and all that was attempted was to aspirate through the bleeding fungous mass. In another case a number of short hollow trochars with numerous lateral perforations could be thrust into, but not quite through, the mass of the tumour before the rubber sucker was applied, by which means the exhaustion could be made to reach even the deep parts. A larger suction cone, closed near the mouth by a flexible perforated diaphragm, and supported within by sufficient septa to prevent collapse, might enable one to make the area submitted to surface suction coextensive with the portion of integument to be sacrificed.

In conclusion—whether or not this principle can ever be of service for inoperable cases, in conjunction with surrounding subcutaneous injections, for instance, of alcohol—it is now proposed as an adjunct to the thorough removal of these tumours. The histological considerations,³ which suggested it to my mind emphasise equally the paramount duty of early operation.

REFERENCES.

¹ See BRITISH MEDICAL JOURNAL, March, 1894, p. 493. ² *Ibid.*, February, 1896, p. 387. ³ Stiles, *Ibid.*, September 24th, 1892, p. 673, etc.

BERI-BERI-STRICKEN CASES.

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In the JOURNAL for December 19th, 1896, p. 1791, under the above heading there is a short account of the ship *Lodestar*, of London, arriving at Falmouth from Rangoon loaded with rice, after a long voyage with the whole crew down with beri-beri, three men having died at sea.

On June 16th, 1898, the German barque *Steinbek* arrived at Bermuda from Probolinggo, Java, with a cargo of raw sugar, all the crew except one man and a boy down with beri-beri. The captain stated that this ship is the *Lodestar* of London, and that after the voyage mentioned above she was sold to her present owners. She took in provisions and a fresh crew at Amsterdam, and sailed to Java. Stores were taken on board to last the whole voyage out and back. None of the crew had been ill with beri-beri before; one man had been in a ship with the crew ill, but was not attacked himself. The ship left Probolinggo on January 27th, 1898, after taking in a supply of water at Sarabaya, which water is brought from Pasaron, higher up the bay. Fresh provisions were used while in port, and some taken to last about a week on the voyage. All the crew were well on leaving Sarabaya.

In lat. 18.23 S., 5.37 W., near St. Helena, on April 29th, when about three months at sea, two men complained of swollen legs and weakness, two others complained on May 9th, and one or two others were attacked every four days until the ship's arrival here. The treatment adopted by the captain was for scurvy. Beri-beri was not mentioned in his instruction-book for medicine chest.

After arrival here six of the worst cases were landed at Nonsuch Station Hospital. They were the first that had been attacked. Fresh meat, vegetables, and milk were ordered. A mixture containing tincture of digitalin 15 m given every four hours, and whisky to the three worst cases, magnesium sulphate in doses of one drachm was given to all every evening; it caused a copious evacuation, which relieved the oedema without apparently weakening the patient, so that it was continued for seven days. All seemed to have the same symptoms—some being more pronounced in one than another. Dyspnoea, worse on exertion, sternal pain, pains over the heart area, oedema of legs and body, muscular weakness and wasting, constipation and absence of patellar reflex. All had ravenous appetites, but vomiting came on after food for the first few days. There were no mental symptoms and no rise of temperature above 99° F. About 2 A.M. on June 17th, one man died suddenly while drinking a cup of milk. Four others recovered very quickly and were able to walk about the grounds in five days. The fifth man had marked oedema of legs, arms, and abdomen, and a very loud *bruit* was heard—loudest over the mitral area. He had oedema of the lungs and very bad dyspnoea. The face was anæmic and an occasional flush was succeeded by a pale cyanotic tinge. The pulse was 140. The temperature did not in any case rise above 99° F. This case remained the same for about ten days, when the *bruit* suddenly disappeared and the other symptoms subsided, the patient recovered and was discharged in about one month. Of the men left on the ship all were stronger up to the time of the ship's departure. Those on board were using ship's stores and also provisions from town.

CARBUNCLE TREATED WITH ANTISTREPTOCOCCUS SERUM.

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I REPORT the following case partly because I have not seen any published account of the treatment of a carbuncle with antistreptococcus serum, and partly because there may be a doubt whether such treatment is pathologically correct. Carbuncle is supposed to be caused by staphylococcus pyogenes aureus, and, therefore, it might be thought that antistreptococcus serum would be without effect.

There is, however, no contention that carbuncle contains the