A FOREIGN BODY IMPACTED FOR SEVEN MONTHS IN THE OESOPHAGUS.

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L. M., aged 7 years, swallowed a halfpenny seven months before being brought for treatment to the Belfast Hospital for Sick Children. It gave rise to no definite symptoms until three weeks before admission, when it was noticed that she was ill and that she brought up foul-smelling material at intervals.

State on Examination.—When admitted on August 19th, 1903, it was noticed that the child could not swallow ordinary diet, and a skiagraph showed a circular or slightly oval body lying almost in the middle line opposite the bodies of the third and fourth dorsal vertebra. The upper margin reached to the level of the third ribs above and the lower margin to a point slightly above the level of the fifth ribs below at the costo-vertebral junction. The oval appearance from above down was due no doubt to the coin lying somewhat obliquely. After an unsuccessful attempt to remove the foreign body through the mouth the child became extremely ill, and brought up considerable quantities of foul-smelling, sanious, purulent matter, while the temperature varied from 99° to 100° F., and the pulse was weak and irregular, with a rate of 150 per minute.

Operation.—A week after admission oesophagotomy was performed on the left side, the skin incision being made from the level of the thyroid cartilage to near the sternum, a little anterior to the sterno-mastoid muscle. The oesophagus was exposed a little below the cricoid cartilage, as this portion was free from vessels and easily accessible. The trachea was drawn out and rotated somewhat to the right side, and the great vessels were well retracted to the left. A small opening was made into the postero-lateral region of the gullet (to avoid the fibres of the recurrent laryngeal nerve) and a long probe passed. It was not found necessary to cut the omo-hyoid muscle as good retraction exposed the posterior surface of the oesophagus to the necessary extent. The probe touched upon a foreign body about $4\frac{1}{2}$ in. from the wound. The end of the probe was bent into a hook shape and passed beyond the body, which was thus hooked up, surrounded by foul-smelling greyish fluid, with a drop or two of blood. The odour was sickening, and was evidently due to ulceration at the point of impaction. When the coin reached the small aperture in the oesophagus it was grasped with Spencer Wells forceps and the wound carefully enlarged so as just to allow of its removal. The halfpenny was covered with thick yellowish-brown muco-pus and was black at the periphery, but copper-coloured and polished in the centre of both surfaces. There was no erosion of the metal, the inscriptions on both sides being quite legible. The wound was well sponged out with a 1 in 1,000 solution of perchloride of mercury. The oesophageal wound was completely closed by a continuous formalin catgut suture for the mucous membrane, and a similar suture for the muscular coat. A small rubber drainage tube was introduced into the depths of the wound, and the skin edges brought together by silk-worm-gut sutures.

Progress and Result.—Shortly after the operation the child regurgitated some of the foul-smelling matter already referred to, stained with blood, but did not vomit. She was, however, very weak and collapsed for two days, with a pulse of 152. The temperature only once reached 100.2° F. No food was allowed by the mouth for nearly forty-eight hours, feeding with beef-tea and brandy and milk and egg alternately being rectal. On the second day the child looked blue and collapsed, with a very bad pulse, although the wound was healing well. The drainage tube was removed and mouth feeding begun, when the child immediately began to improve. Probably the collapse was due to starvation. Vomiting occurred once after feeding by the mouth was begun, but it did not recur. The pulse gradually improved, falling to 130 on the third day, and 92 on the fifth. Some of the skin sutures were removed on the sixth day, and the remainder a day or two later. Healing took place by first intention, and there was no sign of leakage from the oesophageal wound. Easily digested and soft food—soft-boiled egg and thin bread and butter without crust—were given at the end of the first week. The further history of the case was uneventful, and when heard of a few days ago the child was in excellent health.

REMARKS.

The case is of interest in the following particulars:

1. The length of time since impaction, 7 months.
2. The absence of symptoms until three weeks before admission to hospital, when ulceration of the oesophageal walls was evidently in progress.
3. The situation of the coin, close to the arch of the aorta, into which ulceration would possibly have taken place and in a position where the use of forceps might have been fatal.
4. The method of dealing with the oesophageal wound. The wound being in healthy structures was completely closed by a row of sutures in mucous membrane and a second row in the muscular walls.
5. No tube was passed down the oesophagus to feed the patient.
6. Rectal feeding was of doubtful effect. Compare the rapid improvement after food was given by mouth.

A CASE OF MALIGNANT OBSTRUCTION OF OESOPHAGUS: GASTROSTOMY.*

By

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THE operation of gastrostomy for oesophageal obstruction is neither sufficiently rare nor as a rule sufficiently difficult of performance to justify the publication of an isolated case—at any rate at length—but I venture to think that the following brief note may be of interest to many, not only on account of the result obtained, but as an encouragement to others called upon to deal with similar cases; and as a sort of moral to the end of my tale, I would add that the case is not without its bearings upon the much-discussed problem of the relation of the public hospitals to the private practitioner.

History.

The patient was a woman, aged 43, who had always been thin; but her friends had noticed for about twelve months that she was getting appreciably thinner. For many years she had a "peculiar throat," not being able to swallow certain articles of food, but pain was never complained of. About Christmas, 1902, however, her difficulty in swallowing began to increase, and she gave up trying to take solid food, especially meat. Pain was now felt, but it was never a marked symptom, and only came on in attempting to swallow. No medical man was ever consulted until July, 1903, when the patient was staying at Middlesborough. The trouble was at first thought to be spasmodic, but gradually the diagnosis became evident, as complete obstruction developed, with rapid loss of flesh. She returned to Boroughbridge in September, 1903, having been for a week fed entirely by nutrient enemata. Dr. Daggett saw her on September 17th, and immediately made arrangements for me to visit her with a view to operation. I cautiously tried to pass small bougies, but could get nothing beyond the pharynx.

Operation.

On September 24th I performed gastrostomy, using the method generally known as Frank's, but I believe more correctly attributed to Albert. Through an incision just internal to the left linea semilunaris, carried through the fibres of the rectus muscle. I drew out a portion of the stomach, which though small was not difficult to find, and showed no sign of disease. Having fixed this in position by catgut sutures carried through the peritoneal coat of the viscus and then through the parietal peritoneum at the edge of the wound, I made a second incision an inch higher up along the costal margin; this was only carried through the skin and fascia, and by blunt dissection the portion of skin between the two incisions was raised up, and under the arch so formed the portion of stomach already drawn out was pulled and held by passing hare-lip pins through the serous and muscular coats. The lower wound was then closed by interrupted silk-worm gut sutures and a dressing of cyanide gauze applied.

After-history.

An opening was made into the protruding portion of the stomach by Dr. Daggett after twenty-four hours, and through this the patient was fed. All went well (except for a little leaking through the opening, which, however, ceased after a few days, and at no time gave any serious trouble) till the beginning of December; the patient gained strength, was able to sit up, and once or twice was able to go out in a bath chair. The neck on the right side, however, became very much thickened and stiff, and not long afterwards swelling occurred on the left side, the whole enlargement being in the situation of the thyroid gland. An abscess containing fetid pus formed in the tumour, and was evacuated at the end of November, and another one early in December. About this time dyspnoea occurred at intervals, the first attack following a sudden movement of the head to one side; these attacks became more frequent and more urgent as time went on, and on December 22nd tracheotomy was performed by Dr. Daggett. This gave instant relief, but the patient gradually lost ground, and died from exhaustion on January 28th, 1904, nineteen weeks after the operation of gastrostomy. No necropsy was permitted, unfortunately, but I think the case was undoubtedly one of malignant disease of the thyroid gland, as fixation of the larynx was noticed almost from the first.

In estimating the value of the relief afforded by the operation of gastrostomy, one must recognize the fact that when it is performed for malignant disease one is fighting a losing battle, and in most cases the patients have no means of knowing the horrors of the starvation which they have escaped, but must all the same feel the depression accompanying the gradual failure of strength; they are apt, therefore, to be dissatisfied with the result. Our patient, having experienced a week of absolute starvation, was in no doubt as to the benefit she derived, and for the four months for which she lived after the operation constantly expressed her gratitude for the relief afforded by it. For us, there was the satisfaction of showing that a major operation could be successful.

*Read at a meeting of the Yorkshire Branch of the British Medical Association held at Harrogate.

fully performed in a cottage, and the patient, who was unwilling to go away from her home to a hospital, was able to end her days among her own people.

One hears and reads much about the abuse of hospitals by those who can well afford to pay, but part of the blame for this lies at the doors of those practitioners who are too ready to shirk a little responsibility. Many of the better class poor prefer to stay at home if possible, and wherever the services of a good trained nurse are obtainable during the critical portion of the after-treatment, much can be done at home, and it is better for the position of the profession that it should be so done, rather than that people who can quite afford to pay a moderate fee should be obliged to resort to a hospital originally intended only for those in need of relief and unable to pay for it. And this brings me to what I alluded to as the "moral" of my tale—namely, that a partial solution of the problem of hospital abuse lies in the provision of facilities for the better nursing of the poor in their own homes. It is seldom necessary for the nurse to reside in the house; in an artisan's cottage there would not often be room; and operations requiring constant attendance afterwards had better be done in a hospital; but there remains a large class of cases where all that is required is for the nurse to exercise such general supervision as can be given by one or two visits during the day. Under aseptic or antiseptic conditions frequent dressings are rarely needed, and in my experience the poor are better at carrying out orders than the well-to-do, provided that the orders are given to them simply and in a form which will appeal to their common sense.

ON THE TREATMENT OF ACNE, FURUNCULOSIS, AND SYCOSIS BY THERAPEUTIC INOCULATIONS OF STAPHYLOCOCCUS VACCINE.

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C'a été une chose curieuse que la faillite des antiseptiques dans le traitement des maladies dermatologiques parasitaires. On fondait sur eux des espérances colossales, ils n'ont presque rien donné.—SABOURAUD.

THREE and a-half years ago I was confronted with the following situation: I was consulted by a patient, 40 years of age, who was a prey to chronic staphylococcus invasions, and had for seven years suffered from severe and constantly recurring furunculosis, complicated by sycosis, eczema barbae, styes in the eyes, and eczema tarsi. The boils, which occurred all over the body, occurred in two varieties—small superficial boils seated generally in the skin of the neck and face, and larger deep-seated boils occurring in the subcutaneous tissue of every region of the body, more particularly about the nates and thighs. His history was as follows:

Seven years previously, when engaged in clearing out a tracheotomy tube which had been removed from a patient who had been operated upon for acute laryngitis, he accidentally inoculated himself in the forefinger with some of the septic material, and in spite of three deep incisions made successively into the finger and palm of the hand, the infection spread upwards to the axilla, giving origin there to a bubo, and thence onwards into the blood stream, setting up high fever and septic peritonitis. The susceptibility to staphylococcus invasion had manifested itself immediately after the septic attack.

Immediately before the date at which the patient consulted me I had been engaged in following out the changes which are produced in the blood after the inoculation of antityphoid vaccine. I had ascertained in the course of that inquiry that the inoculation of a bacterial vaccine is followed first by a negative phase of diminished bacterial power, corresponding no doubt to the period of application of the vaccinal stimulus; secondly, by a positive phase of greatly increased bactericidal power, that is, a period of active response; and lastly, after the remission of the stimulus, by a comparatively durable period of increased resistance. I had further determined that the negative phase effect is directly dependent with respect to duration and intensity upon the dose of the vaccine, such negative phase being of only short duration when the dose of the vaccine inoculated is small and where the constitutional symptoms produced are slight. Reflecting upon these facts it occurred to me to break through conventional restrictions, and to exploit bacterial inocu-

lations, not alone for the purpose of prophylaxis but also therapeutically, in the case of patients suffering from localized bacterial invasions. Giving effect to these considerations, I proceeded in a tentative manner—testing in each case the effect produced upon the blood by each separate inoculation—to experiment on the possibilities of applying inoculation of a staphylococcus vaccine in the treatment of furunculosis, sycosis, and acne. I published my first results obtained on a series of 6 cases in the *Lancet* for March 29th, 1902. I set forth in the paper in question in detail the method employed for the preparation of the vaccine and the course of the reaction of immunity as indicated by the phagocytic reaction of the blood before and after inoculation. It emerged very clearly that we have, in the case of the inoculation of staphylococcus vaccine, to deal with a precisely similar sequence of negative and a positive phase as in the case of antityphoid inoculation; and further, that, as in the case of antityphoid inoculation, the duration of the negative phase varies with the quantum of the vaccine inoculated; lastly, that the attainment of the desired clinical result depends on the cumulation of the effects of a series of properly interspaced inoculations. The clinical results achieved in the 6 cases here in question were very full of promise. The cases that were treated were, first, the case of severe and multiform staphylococcus invasion just described; secondly, a case of very severe sycosis, which had lasted for a period of years, and which had been intractable to all treatment; thirdly, a case of furunculosis in an old lady which had followed upon a surgical operation; fourthly, a case of acute furunculosis in a medical student; fifthly, a case of mild sycosis; and, lastly, a case of irritable furuncular pimples on the back of the neck.

I have since the date of the publication of the paper in question treated by the method of inoculation a further series of cases of staphylococcus invasion. These cases include: One case of severe generalized staphylococcus invasion characterized by boils, paronychia, and severe acne; three cases of severe and long-continued sycosis barbae, which had proved intractable to treatment by antiseptics; a further case of sycosis barbae, which had been treated by epilation for many years; six cases of moderate furunculosis; and seven cases of severe and very chronic acne. In nearly all these cases I have plotted out in the form of a curve the change produced by inoculation in the phagocytic power of the blood.

The following are brief particulars of some of the cases:

CASE VII.

The patient is a medical man, the curator of a pathological museum. He suffered more or less continuously for years from boils in all parts of the body, from severe facial acne, and from paronychia. We have here evidence of a susceptibility to every form of staphylococcus invasion. In April, 1903, after removal of four finger-nails for paronychia, he applied to me with a view to subjecting himself to staphylococcus inoculations. At the time the patient was suffering also from "a large crop of boils upon his neck." He writes, "after the first inoculation, these quickly aborted, and I remained in very good health until August, when a large furuncle formed in my right buttock." This furuncle aborted after undertaking a second inoculation. The patient reports (January, 1904) "that the facial acne has been considerably better since the inoculation, but I am," adds he "by no means cured, as I had another furuncle in the loin a few days ago, but I must say that I have had great benefit from the inoculations." Owing to the fact that the patient was treated in the provinces, no data are here available with regard to the condition of the blood before and after inoculation.

CASE VIII.

Patient, a labourer, 40 years of age, the subject of sycosis, gives the following history: He suffered as a child from severe pustular eczema and from deep-seated suppuration behind the ear, which continued for years and has left very deep scars. He has also suffered from time to time from boils and from a discharge from the ears. We have here probable evidence of a lifelong susceptibility to staphylococcus invasions.

Five months ago his head became very scurfy, and the inflammatory affection passed down from the head to the parotid region, and finally to the beard and to the whole hairy surface of the face and chin. The patient now presented himself for treatment as an out-patient in the Skin Department of St. Mary's Hospital, and was treated by the x rays and by antiseptics for two months without any improvement. It was now determined to try the effect of staphylococcus inhalations.

Condition of the Patient when the First Inoculation was Undertaken.

November 2nd, 1903. The patient was suffering from very aggravated pustular sycosis, each hair of the beard being surrounded by pus, while there was considerable induration and furuncular inflammation below the angle of the jaw of the whole anterior surface of the front of the neck. The patient's phagocytic index, taking unity as representing the phagocytic index of the normal blood, was 0.48. The patient was inoculated with a quantum of sterilized staphylococcus culture which contained 2,500 millions staphylococci.

November 9th. Sycosis is astonishingly improved. The general health