SECOND PRIMARY GROWTHS IN THE REMAINING BREAST AFTER AMPUTATION OF THE OTHER FOR CARCINOMA.

BY

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CANCER of both breasts is not infrequently met with either where the original growth has not been removed and dissemination of the disease has taken place, or where the original trouble has been removed, but in spite of treatment recurrence takes place. In both conditions the growth in the second breast is part of the process of general dissemination, and is usually associated with other local and internal deposits.

In my experience it is extremely rare to find a second solitary growth developing in the remaining breast after the lapse of two or three years, the patient being in good health and careful examination failing to reveal any evidence of secondary deposits in any other region. I have two such cases under my observation at the present time.

CASE I.

M., aged 53. First operation May, 1912; left breast. Remained well till August, 1915 (thirty-nine months), when the right breast was removed for a small growth in the breast tissue which had been present only a few weeks. The growth was a spheroidal cell carcinoma.

On examination of the patient, November, 1916 (fifteen months after the second operation), no evidence of any recurrence could be found either locally or internally.

CASE II.

A doctor's wife. First operation October, 1912; right breast. Remained free from trouble till about May, 1914, when a nodule was noticed in the left breast. The patient was very adverse from a second operation, so a tube of radium was inserted into the growth through an incision. No benefit resulted, so the patient was persuaded to have the breast removed; this was done in July, 1914 (twenty-one months after the first operation), and the patient is in active health at the present time (October, 1916), twenty-eight months after the second operation. Both tumours were spheroidal cell carcinoma.

These two cases are not brought forward as "cures," as only fifteen and twenty-eight months have elapsed since the second operation.

The question is, whether one is justified in regarding them as examples of a second outbreak of cancer, or, as I have described them, as a second primary growth.

Inasmuch as the interval between the first and second operation was only thirty-nine months in the one case and twenty-one months in the other, so that in neither case would it be correct to speak of a "cure," exception may be taken to the title that the growths in the second breast in the two cases were really of the nature of fresh outbreaks of the disease, but that they should be regarded as solitary secondary nodules.

Were this the correct explanation we should have expected to find other secondary growths in distant organs, the infection being carried by the lymph stream; if, on the other hand, the growth in the second breast was due to "permeation," it is almost certain that there would have been other local manifestations, so that I think the conclusion is justified that in each case it was a fresh outbreak of cancer.

It is interesting to note that in spite of the removal of so much of the skin of the thorax, together with both pectoral muscles on each side, the movements of the arms in each patient are practically unimpaired.

NOTE ON AN ORGANISM PRESENT IN THE BLOOD OF PATIENTS SUFFERING FROM "TRENCH NEPHRITIS."

BY

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RECENTLY the blood of all cases diagnosed as "trench nephritis" admitted to No. — Casualty Clearing Station has been examined from the cultural point of view. The results have proved somewhat striking in that, with one single exception, every one of twenty-seven cases examined has shown the presence of an identical coccus.

About 10 c.cm. of blood are drawn direct from a vein into 10 c.cm. of a liquid medium, whose composition and method of making, as given to me by Sergeant H. A. H. Howard, B.Sc.Lond., R.A.M.C., is as follows:

To every 750 grams of minced heart muscle, from which all fat and large vessels have been removed, add 1 litre of water. Heat to 75° C. to destroy antitryptic ferments. Cool to 37° C., make alkaline to litmus, and add 1 per cent. liquor trypsin co. (Allen and Hanburys). Incubate for four hours at 37° C., acidify with acetic acid, bring to the boil, filter, make reaction + 15, and sterilize in the steamer for ten minutes on each of six successive days. To this add 5 per cent. "saline pea extract" and 3 per cent. sodium citrate.

The resulting medium is tubed and sterilized at 100° C. for fifteen minutes on three successive days. On no account must the autoclave be used.

To make the saline pea extract, mix 50 grams peaflour and 100 grams sodium chloride with 1,000 c.cm. water, steam for half an hour, and filter. The filtrate is sterilized at 100° C. for ten minutes.

The blood tubes are put into the hot incubator and examined about the fifth day. Strong haemolysis is a marked feature of growth.

Slides stained with carbol-fuchsin for ten minutes will be seen to contain minute cocci.

Subcultivations can be made on to ordinary agar or pea extract trypsin agar.

Microscopical and Cultural Characters.

Examined under the highest powers, the organism is seen to be an extremely minute diplococcus, with adjacent surfaces flattened against each other. It is usually seen singly or in groups, seldom in chains. They are non-motile, have no capsules, and do not stain.

It grows readily, as stated, on ordinary agar as a fine growth not unlike *Micrococcus melitensis*. It does not liquefy gelatine, on which it grows readily. It ferments glucose, lactose, mannite, sorbite, and saccharose within forty-eight hours, but not dulcitol. There is no formation of gas in any of the sugars.

Agglutination tests performed against it with meningococcic and *M. melitensis* antisera were negative in a dilution of 1 in 10.

A rat and a guinea-pig were each inoculated intraperitoneally with 1 c.cm. of a strong emulsion of the organism, which had been cultivated from a severe case. The rat was "sick" for twenty-four hours, and then appeared to recover. It was chloroformed on the third day. *Post-mortem* examination showed considerable enlargement of spleen, from which and from the heart's blood this coccus was recovered in pure culture. The kidneys were apparently normal. The guinea-pig appeared to be immune.

I hope to report further data shortly.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

RHEUMATOID ARTHRITIS APPARENTLY CURED BY "AUTO" COUNTER IRRITATION.

THE treatment of chronic rheumatoid arthritis by counter irritation and keeping down the ulcerated surfaces has, I consider, received substantial support from the following case.

L. H., aged 45, had suffered from rheumatoid arthritis in very bad form for nine years; nearly every joint was affected; he was only able to get about on crutches, and there was considerable emaciation. He came under my care two years ago. He improved considerably from the administration of arsenic, iron, strychnine, and iodides internally, good stimulating diet, fresh air, residence in a high altitude, and avoidance of all thermal water treatment.

Six months ago he developed glandular swellings in the neck, one on each side, about two and a half inches above each clavicle; they rapidly suppurated, and assumed the dimensions of large walnuts. He refused to have them opened, and I then explained to him that as it was his wish to allow them to break, it would be an opportunity for treating the arthritis by counter irritation in keeping the ulcerated surfaces open. The patient was much interested in the proposition, and gladly accepted the suggested treatment. The abscesses, after discharging,