NOTES ON A SERIES OF CASES OF TUBERCULOSIS OF THE MAMMA.

By ALEXANDER MILES.

It is generally recognised that the human breast is singularly seldom affected with tuberculosis. Virchow, indeed, included it amongst the organs which are not subject to this disease. In 1881, however, the tubercle bacillus was demonstrated in mammary tissue by Dubar, and since his classical study on the subject was published a sufficient number of cases have been recorded to prove that the breast only enjoys a comparative immunity.

Apart from the cases in which tuberculous lesions of the ribs or pleura invade the breast, with which we are not here concerned, the usual mode of infection is through the blood-stream. In some cases a primary focus of disease is discoverable, or a tuberculous history is forthcoming (e.g. Cases I., IV.); but in others the patient apparently enjoys perfect health, and shows no constitutional or hereditary tendencies (Cases II., III., VI.).

The available evidence is in favour of the view that the disease generally begins in the acini of the gland rather than in the connective tissue or ducts. The disease may be met with in the form of numerous isolated foci of varying size scattered through an area of the breast, each showing the characteristic structure of the tubercle nodule, while the intervening tissues are apparently healthy. As the condition progresses these foci fuse, and as caseation and liquefaction occur, a tuberculous abscess forms. Sometimes, as in Case VI., a thick wall encloses the débris—the so-called intra-mammary cold abscess. It is often difficult to find the tubercle bacillus in the tissues.

The following six cases illustrate some of the clinical aspects of the condition:

CASE I.—An unmarried woman, aged 49. The first thing to draw her attention to the breasts was a gradual recession of the right nipple, which began about two years after the menopause. Shortly after this a white milky discharge began to escape from the nipple. At this time there was no swelling to be detected in the breast, which was of normal size and consistence and free of pain. Two years later, however, the lower half of the breast became swollen and painful, and was firmer to the feel than before. Under the influence of local applications the firmness disappeared, the swelling got less, and the pain diminished, the only discomfort being a feeling of tightness in the breast. As the discharge from the nipple and a degree of swelling in the lower part of the breast persisted, she applied for advice at the Royal Infirmary.
On examination a firm swelling, almost cartilaginous in consistence and about the size of a hen's egg, was felt in the lower half of the breast. The upper margin was sharply defined, but below, the swelling merged into the breast tissue. The swelling was easily recognised by picking it up between the fingers and thumb, but became less evident when pressed firmly against the chest wall. The skin was not adherent to the swelling, and the breast moved freely on the chest wall. The nipple was retracted below the level of the areola, and thin milky fluid could be pressed from it. On microscopic examination no organisms were found in the fluid and no growth took place in culture media.

As ten years previously I had amputated the patient's right leg for intractable tuberculous disease of the knee, and as the family history was unsatisfactory, six members having died young— one of pulmonary phthisis at the age of 33—the diagnosis of tuberculous mastitis was at once suggested, and was eventually confirmed by microscopic examination.

The whole breast was excised, and eventually the patient made a satisfactory recovery.

Case II—A married woman, aged 36, gave the history that a fortnight after the birth of her ninth child, which died a few days after it was born, inflammation began in her right breast and went on to suppuration. The abscess which formed was frequently lanced by her doctor, but eventually healed. About three years later she experienced a slight pain in the breast, and noticed a small firm lump close to the nipple. This lump gradually increased in size during the next three months, and then somewhat suddenly became acutely painful, softened, and burst, giving exit to a considerable quantity of thick matter. After the discharge had continued for some weeks she sought advice at the Royal Infirmary, when a large firm mass was found occupying the central part of the corpus mamma. The nipple was markedly retracted, and close to it was a sinus from which blood-stained pus of a tuberculous character could be pressed. The skin over the swelling was of a dark blue colour. The breast was freely movable on the chest wall. The axillary glands were enlarged, soft, and tender. Although she had never been able to nurse with the right breast, the retraction of the nipple only dated from the appearance of the lump. There was no other evidence of tuberculosis discoverable, and the family history was negative.

As the patient would not consent to the removal of the breast, the affected segment was excised, and owing to the presence of a mixed infection, the cavity was packed with iodoform gauze. It gradually closed, and the patient left hospital with a comparatively superficial ulcer in about a fortnight. Microscopic examination of the tissue removed showed it to be a tuberculous mastitis.
Five weeks later she returned to hospital with a sinus still discharging, and an extension of the disease in the remaining portion of the breast. Complete removal of the breast with the axillary contents was carried out, and the wound healed. Two years later, Dr. Reid of Forth, her medical attendant, reports that she has had no further trouble from the breast and is in excellent health.

Case III.—A married woman, aged 47, who, three months before seeking advice, had noticed a degree of stiffness in the left shoulder which she attributed to excessive work involved in removing from one house to another. A few weeks later she detected a firm lump about the size of a walnut in the upper and outer parts of the breast towards the armpit. It caused her no pain, but was slightly tender on pressure. She had a family of ten healthy children, had hitherto enjoyed excellent health, and there was no history of tuberculosis in her family. Since the lump appeared, however, she had fallen off in health, and had lost weight considerably. There was no evidence of pulmonary tuberculosis. The lump steadily increased in size, became softer, and, after lasting for over two months, burst, giving exit to a quantity of thick flaky pus.

On examination it was found that both breasts were pendulous, the left being somewhat larger and fuller than the right. The left nipple was retracted, and on the upper and outer quadrant of the breast were two small ulcerated areas from the centre of which pus could be pressed. The edges of the ulcers were thinned out and undermined, and the surrounding skin had the characteristic bluish hue associated with tuberculous lesions. In this segment of the breast was a firm nodular swelling which continued into the axilla as a broad mass, evidently made up of matted lymph glands. The whole was attached to the underlying muscle and fascia, and could not be moved like the rest of the breast. There was little difficulty in recognising the nature of the condition.

An elliptical incision was carried from the nipple outwards towards the axilla, and the whole of the affected area of the breast, together with the axillary glands, was excised. As the disease infiltrated the pectoral muscle, a portion of this was removed also. The patient made a slow but eventually satisfactory recovery. She has since been lost sight of.

Case IV.—The patient was 29 years of age. Her first child was born when she was 21. In the seventh month of her second pregnancy an abscess formed without acute symptoms in the lower and outer quadrant of the left breast. When incised this was found to contain thin watery pus, and it rapidly healed. Two weeks later a similar abscess formed in the upper and inner quadrant of the breast.
It contained thick flaky masses of tuberculous débris, and did not communicate with the previous abscess. In view of the patient's condition, resection was not proposed; the abscess was scraped with the sharp spoon and slowly healed. The patient was otherwise healthy, but one of her sisters had died of "consumption."

Case V.—The next case occurred in a married woman, aged 35, who for about three months had complained of some pain in the left breast, followed by the appearance of a small tender lump in the substance of the gland to the upper and outer side of the nipple. A month later a similar lump formed a short distance above the nipple. In the course of about six weeks the second lump gradually softened, the skin over it assumed a bluish colour, became thinned out and eventually broke, giving exit to a quantity of thin sero-purulent fluid mixed with blood. The pain was relieved by the bursting of the abscess, but the sinus continued to discharge.

When she applied for advice, a firm, irregular mass was found in the upper and outer quadrant of the breast, measuring about 5 inches in its long axis towards the axilla and about 3 inches across. A small opening with characteristically thin and bluish edges marked the site at which the abscess had burst, and a probe could be passed for some distance into the breast. The skin was movable over the greater part of the swelling, and the breast was not attached to the chest wall. The nipple was markedly retracted, but this state of affairs dated back some sixteen years, having commenced shortly after the birth of her first child, and when her second child was born seven years later, it was so depressed that it could not be used for suckling. Only a single enlarged axillary lymph gland could be detected, and it was quite firm.

The affected segment of the breast was excised by an elliptical incision, and the enlarged gland removed. The wound healed by primary union, and there has been no further trouble. On microscopic examination the condition was found to be a chronic tuberculous mastitis. The patient was not a robust woman. After her first confinement she made a very slow recovery, and during her third lactation she had an abscess in the left breast, which, however, healed rapidly after incision. For about six months before the development of the tuberculous affection she had been falling off in health and becoming thinner, but there was no evidence of active tuberculosis to be detected in any other organ. Her mother died at the age of 45 from "a tumour of the left breast," and her father at 22 from "inflammation." Her brothers and sisters were healthy.

Case VI.—A waitress, aged 23, noticed a small swelling in her right breast, near the nipple, four months before she was seen by me.
The swelling was firm to touch and painless at first. It gradually increased in size and became softer, and within the last three months caused slight twinges of pain. When she sought advice the swelling was about the size of a Tangerine orange, semi-solid in consistence and tender on pressure. It occupied the central portion of the breast, underlying the nipple; the skin was not adherent over it, and the nipple was not retracted. There was no enlargement of the axillary glands. The general health was excellent, and there was no history of tuberculosis in the patient or her family.

To avoid disfigurement, an incision was made at the outer border of the breast, and the abscess dissected from the surrounding breast-tissue. It had a thick fibrous wall and contained several ounces of thick greenish-yellow pus. On microscopic examination the wall was found to be lined with tuberculous granulation tissue containing numerous giant cells. The wound healed by primary union. Sufficient time has not elapsed to show if the cure is permanent.