The case described presented with pyrexia, enlargement of the spleen, and profound depression of both red and white cells. The bone marrow was markedly hypoplastic. There was no clinical or radiological evidence of disseminated tuberculosis, and no glands were available for biopsy. Culture and guinea-pig inoculation of material obtained by bone-marrow aspiration might have confirmed a tuberculous infection during life, as might examination of bone marrow for miliary tubercles (Schleicher, 1946). This case was treated with streptomycin for 10 days without any beneficial effect.

I thank Dr. J. E. Morrison for the histological report.

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REFERENCES

- Fountain, J. R. (1954). *Brit. med. J.*, 2, 76.
Schleicher, E. M. (1946). *Amer. Rev. Tuberc.*, 53, 115.

Plasma-cell Mastitis

Plasma-cell mastitis is a rare disease of the breast, and the purpose of this communication is to record a case.

CASE REPORT

A married woman aged 48 was referred to the surgical out-patient clinic at St. James' Hospital, London, for opinion on a lump in the left breast of four weeks' duration. There was no history of trauma, and she had had no previous trouble with the breasts. There had been only one pregnancy. The lump had been painful and tender for about two weeks. Under observation the pain and tenderness subsided but the lump persisted. Her general health was satisfactory.

Examination revealed a normal right breast and clear axilla. The left breast showed a retracted nipple and dimpled skin over an irregular hard mass in the lower outer quadrant of the breast. The mass was about the size of a golf ball and was fixed to the areola but not to the deeper structures. There was no discharge from the nipple. Small axillary glands were palpable, but were quite mobile.

She was admitted immediately for treatment. In view of the history of an inflammatory episode, it was decided to explore the mass, and on cutting into it puriform material extruded. It was therefore decided to excise the mass and await the histological report, which was as follows: Sections of the breast show areas of stromal inflammation in which plasma cells are the predominant cell; polymorphs, macrophages, and lymphocytes are also present. Periductal infiltration by plasma cells is a marked feature; no giant cells are seen. Some ducts have a hyperplastic epithelial

High-power view of periductal round-cell infiltrate, showing a mainly plasma-cell infiltrate.

lining and the lumen contains desquamated cells, some of which are colostrum cells. In none of the sections is there any evidence of malignancy, and the picture is that of plasma-cell mastitis.

Following the excision, no further treatment was given and the patient made an uninterrupted recovery, being discharged 12 days after admission. A month later she was very well and there was no mass in the breast. She was seen again a year after discharge and nothing untoward was noted.

COMMENT

The rarity of plasma-cell mastitis is evidenced by the fact that in a recent review of the subject Ferrara (1955) was able to collect only 76 cases since 1931. Although the term "plasma-cell mastitis" was first suggested to Cutler by Ewing in 1925, it was not until 1931 that it appeared in the literature in Cheatle and Cutler's (1931) book. Adair (1933) reported in detail on the 10 cases included in the above book. He advised local excision and believed the condition to be precancerous. Schultz (1933) emphasized that a clinical diagnosis was possible, and he also believed it to be precancerous.

The aetiology of this condition is undetermined, but most authors subscribe to the view that it is an inflammatory process due to extravasation of the duct contents. It is a condition found in women usually between the ages of 30 and 50 years, with the maximum peak around 40 years. It is almost always seen in non-lactating breasts and in parous women.

The essential feature in the clinical diagnosis of the condition is the occurrence of an inflammatory episode preceding the lump in the breast. While this characteristic history is forthcoming from the vast majority of patients, it is well to remember that in some the episode of previous inflammatory lesion may be absent, as pointed out by Cromar and Dockerty (1941). The initial stages of the disease may be mistaken for a breast abscess and treated as such. The residual stage presents features which suggest a diagnosis of carcinoma, and the surgeon has to be wary here.

The pathological features usually are quite characteristic, and the ultimate onus of an accurate diagnosis lies with the pathologist. He should therefore be given the opportunity of a detailed and satisfactory histological scrutiny. While rapid frozen sections may provide the answer, there are pitfalls, as pointed out by Cutler (1949). The intense epithelial hyperplasia and swollen plasma cells may lead to an erroneous diagnosis of anaplastic carcinoma. Many authors believe that the condition has malignant potentialities. Gaston (1947) suggested two ways in which this could become manifest—namely, either as a malignant epithelial neoplasm from de-differentiation of duct epithelium or as a malignant plasmacytoma. In the present state of our knowledge of plasma-cell mastitis there is no convincing evidence regarding its malignant potentialities.

As regards treatment of the condition, the consensus of opinion favours either simple mastectomy or local excision of the mass as being adequate. Radical mastectomy is unjustifiable.

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REFERENCES

- Adair, F. E. (1933). *Arch. Surg. (Chicago)*, 26, 735.
Cheatle, G. L., and Cutler, M. (1931). *Tumours of the Breasts*. Arnold, London.
Cromar, C. D. L., and Dockerty, M. B. (1941). *Proc. Mayo Clin.*, 16, 775.
Cutler, M. (1949). *Brit. med. J.*, 1, 94.
Ferrara, B. E. (1955). *Amer. Surg.*, 21, 376.
Gaston, E. A. (1947). *Surgery*, 21, 208.
Schultz, A. (1933). In F. Henke and O. Lubarsch's *Handbuch der speziellen pathologischen Anatomie*, VII, 2, 145. Berlin.