Lymphosarcoma of the Breast

A CASE REPORT

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SUMMARY

Lymphoma of the female breast is rarely a primary lesion. It may be found without manifestations of the disease elsewhere in the body. The types include the reticular cell, the histiocytic, the mixed and the follicular type of lesion. Usually the disease disseminates to the other parts of the body, but should it be confined to the breast and be successfully treated, it will not develop elsewhere. Clinically, radiologically and pathologically these lesions may be misdiagnosed as carcinoma. Irradiation is the treatment of choice for lymphosarcoma and therefore mastectomy is not generally recommended and may even be contra-indicated.

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Lymphoma of the female breast is rarely seen as a primary lesion,[1] and Gershon-Cohen[2] regards fibrosarcoma and lymphosarcoma of the breast as rare lesions. According to Haagenson[3] all types of lymphosarcoma may be found in the breast without manifestations of the disease elsewhere in the body. These types include the reticular cell, the histiocytic, the mixed, and the follicular types of lesion.

Usually, soon after the discovery of the breast lesion, the disease disseminates to other parts of the body and appears in the lymph nodes in the chest, and both breasts may be involved. Should the disease be confined to the breast and successfully treated, it will not develop elsewhere.

This report describes the mammographic and histological features of a typical breast lesion. It emphasises the difficulty in differentiating it from carcinoma.

CASE REPORT

A 59-year-old woman was admitted to the professorial surgical unit of the Johannesburg General Hospital. She had been referred for a lump in the right breast which she had noticed for only a few weeks, and there had been no previous trauma. The lump was painless and no discharge from the nipple had been observed before admission. She had one child who had been breast-fed for 2 months, and the family history was negative as regards malignant breast disease. Her menopause had occurred 8 years previously. She also complained of some pain in the lower back, radiating into the loins and iliac fossae for the previous 3 weeks. There were no urinary symptoms.

On examination there was a lesion in the lower outer quadrant of the right breast which measured about 3 × 4 cm. The right breast was larger than the left and both breasts had inverted nipples from which there was a milky discharge.

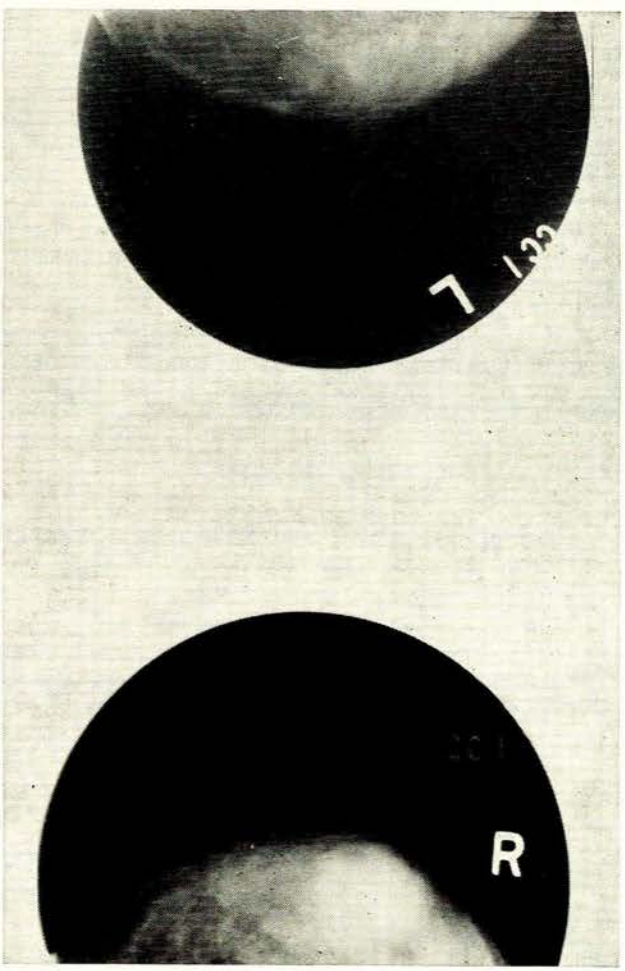

Fig. 1. See text.

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The mass was hard, nodular, mobile, and not fixed to the skin or deep structures. There was no oedema. No lymph nodes were palpable in the axillae. An ill-defined epigastric mass was palpable but difficult to determine and assess. The patient was anaemic and sternal puncture showed iron deficiency and a few atypical, undiagnostic, reticulum cells. Radiography of the spine, pelvis and kidneys was normal. Material aspirated from the breast showed numerous undifferentiated malignant cells. Urinary tests were normal.

Mammography demonstrated a 3 × 2,5 cm mass positioned 1 cm lateral to, 3 cm above, and 1 cm deep to, the nipple. It was not homogeneous in density, it was circumscribed, but blurred in parts. There was adjacent retraction of the skin. There was no calcification in the lesion. Radiology suggested malignancy. The tumour blended with the surrounding parenchyma, and posterolaterally the margins were poorly defined. The lesion was regarded as probably a mucin-producing, or medullary, carcinoma (Fig. 1).

A lump 3 cm in diameter was removed. Frozen section showed it to be soft, haemorrhagic, with some fibrous tissue peripherally. Histology suggested a small-cell malignant tumour, possibly a lymphoma, or a poorly differentiated small-cell carcinoma; the latter was considered to be more likely. Paraffin section showed the tumour to be composed of cells similar to those of a lymphoma, but without the nodular pattern. Infiltration by lymphoma was also present in the fibrous tissue in and around the lobules. A diagnosis was made of malignant lymphoma of the breast.

During her convalescence, the patient complained of epigastric discomfort and a mass was palpated in the epigastrium. Biopsy of this mass showed nodular malignant lymphoma with evidence of breakdown. It was uncertain which of the two lesions was primary. The pathologist, (J. J. R), thought it likely to be the lymph node lesion which was showing evidence of becoming more diffuse and which may have disseminated to the breast and elsewhere.

DISCUSSION

A number of case reports of lymphosarcoma presenting in the breast have been recorded. De Crosse *et al.*[4] have reviewed 14 cases, and Haagenson[3] cites 9 cases from his clinic at the Columbia Presbyterian Centre, New York, all of whom were closely followed-up. He also reported 8% with bilateral breast involvement in a further 33 cases studied at his clinic. Some of the lesions present clinically as well-delimited and mobile tumours, but others are indistinguishable from carcinoma, are poorly delimited, and may produce retraction of the skin.

From a pathological point of view it is important to appreciate that a 'frozen section' of the lymphoma may be mistaken for an undifferentiated small-cell cancer;[3] therefore, clinically, radiologically, and pathologically these lesions may be misdiagnosed as carcinoma and lead to incorrect treatment. As lymphosarcoma is usually incurable and becomes generalised in time, irradiation of the lesion is the treatment of choice; mastectomy is not generally recommended and may be contra-indicated.

The mean survival rate of the 33 cases studied by Haagenson,[3] from the commencement of treatment by irradiation, was 44 months. Patients' ages varied from 25 - 74 years; they presented with mammary tumours which varied in size from 2 cm to 14 cm.

CONCLUSION

Clinically, radiologically and pathologically by a frozen section, a lymphosarcoma, appearing to be confined to the breast, may be misdiagnosed as a carcinoma. This is an important consideration in selecting the treatment for the condition, because it spreads in time. Mastectomy is usually futile. As the neoplasm is highly sensitive to radiotherapy, this should be the treatment of choice.

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