

Fig 1 Surface papillary carcinoma with underlying area showing sarcomatous differentiation (Haematoxylin and eosin).

ocarcinoma with papillae and psammoma bodies. Examination of metastases showed adenocarcinoma. Several nodular masses lining the inner surface of the larger cyst were also adenocarcinoma. One nodule, however, showed sarcomatous differentiation (fig 1) with numerous desmin positive cells on immunohistochemical staining, both within the nodule and admixed with contiguous epithelial tumour. PTAH staining showed rhabdomyoblasts with cross striations (fig 2), which were confirmed by electron microscopy. Areas of liposarcoma were also found (fig 3). No evidence of sarcoma was found in the contralateral ovarian tumour or in the metastases. No teratomatous organoid growth pattern or neuroepithelium was

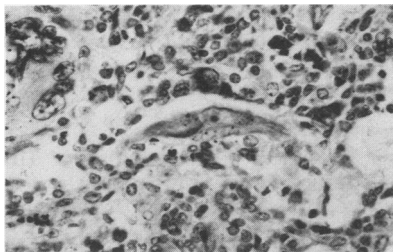


Fig 2 Rhabdomyoblast showing cross striations (PTAH).

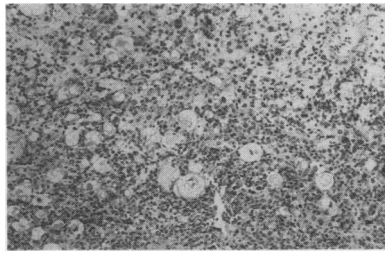


Fig 3 Area of lipoblastic differentiation showing vacuolated cells with typical nuclear scalloping (Haematoxylin and eosin).

found in the tumour. In addition, there was no evidence of endometriosis. Myometrial lymphatics were infiltrated with carcinoma, and the endometrium showed a normal secretory pattern. The patient was alive six months after her initial presentation.

We consider that this tumour is an early form of ovarian malignant mixed mesodermal tumour, and as such is unusual in that these lesions tend to present in older nulliparous patients. We also feel that sarcomatous mural nodules in cystic serous ovarian tumours may be more common than published reports would suggest, and that their true incidence may be detected by more extensive sampling of any nodular masses found in the walls of serous tumours. Furthermore, it is of interest that this tumour should arise in a patient with neurofibromatosis, a syndrome associated with an increased incidence of a variety of malignancies, including ovarian cancers.<sup>2</sup>

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#### References

- 1 Clarke TJ. Sarcoma-like mural nodules in cystic serous ovarian tumours. *J Clin Pathol* 1987;40:1443-8.
- 2 Sorensen SA, Mulvihill JJ, Milson A. Long term follow-up of von Recklinghausen neurofibromatosis. *N Engl J Med* 1986; 314:1010-14.

#### Histopathology of benign breast lesions

We read with interest the recent paper by Barnard *et al*<sup>1</sup> about their experience of the histopathology of benign non-palpable breast lesions identified by mammography. We were, however, concerned that no mention was made of specimen radiography. We

regard this as essential to confirm that the mammographic abnormality has indeed been removed. This applies even when needle localisation is used. Specimen radiography is most helpful in confirming the presence of calcifications but may be less satisfactory in the case of a density of a distortion of trabecular architecture. None the less, it is still an important step in the handling of non-palpable breast lesions identified by mammography. The specimen radiograph should also be used by the pathologist as a guide when sampling the specimen for histological examination.

With the advent of breast screening throughout the country, the number of mammographically indicated biopsy specimens taken will increase and it is important that the excised tissue should be handled in such a way as to yield maximum information and correlate mammographic and histological appearances.

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#### Reference

- 1 Barnard NJ, George BD, Tucker AK, Gilmore OJA. Histopathology of benign non-palpable breast lesions identified by mammography. *J Clin Pathol* 1988;41:26-30.

Drs Barnard, George, Tucker and Gilmore reply:

We fully agree with the comments of Drs Millis, Girling and Fentiman about specimen radiography. At the beginning of our study period we did not routinely use it. We have, however, been doing specimen radiography for some time and though our previous results are comparable with our present ones, we feel much more confident that we are obtaining the maximum information from the specimens in the most efficient way.

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