



“Can it be breast cancer?”

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Jenny, 86, presented with bilateral breast masses. Clinical and radiologic examinations were alarming enough to refer the patient to a surgeon for biopsy. Jenny had no other medical or surgical conditions.

The surgical excision biopsies of bilateral palpable masses were done. The right breast lesion measured 2.5 cm in diameter with irregular grey-white tissue. The left breast lesion measured 2.5 cm in diameter with grey-white streaks and cyst formation. One focal area showed chalky, yellowish appearance. Entire tissue from both biopsy materials was examined histologically.

What did the microscopic examination show?

The sections showed fibrocystic changes, including apocrine metaplasia and ductal epithelial hyperplasia. Multifocal areas of massive deposit of homogenous eosinophilic materials, associated with multinucleated giant cells were also seen (Figure 1). These materials were also seen around the ducts and blood vessels (Figure 2).

What's your diagnosis?

- a) Fibrocystic changes of breast
- b) Post-traumatic fat necrosis with calcification
- c) Amyloid tumour
- d) Infiltrating ductal carcinoma

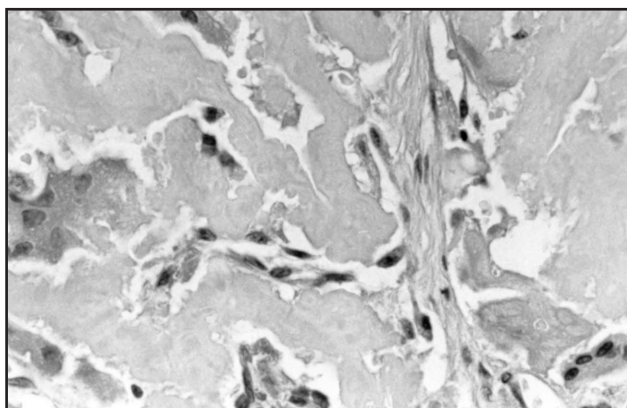


Figure 1. Deposit of eosinophilic material with multinucleated giant cells in breast tissue (magnified 200x).

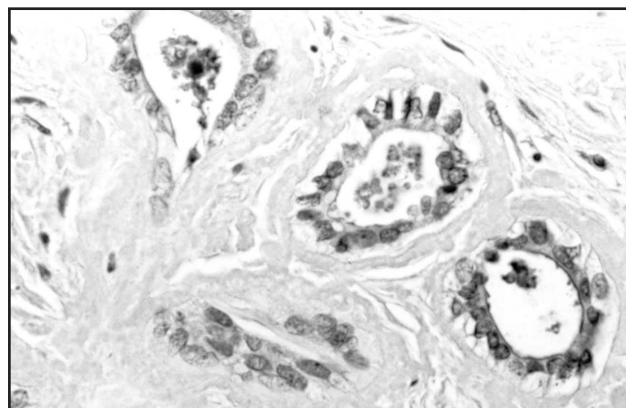


Figure 2. Breast tissue showing deposits of eosinophilic materials around the ducts and blood vessels (magnified 200x).

Answer:

Amyloid breast tumours and fibrocystic changes

The tumours are bilateral and benign.

More about amyloidosis

Although isolated amyloidosis in other organs occurs frequently, it is extremely rare in breasts. Only eight cases are documented.¹⁻⁵

Jenny's case has additional features of bilateral occurrence. Very few cells showed features of plasma cells. Congo red stain clearly identified the deposited material as polarized apple-green birefringence.

Followup of the patient after four years revealed no recurrence of breast lesion in mammogram. Subcapital fracture of the left femur, loose bodies, and left wrist fractures are found. Calcification of the aorta and cardiomegaly were diagnosed on followup. Jenny also had severe osteoporosis, however, no plasmacytosis or Bence Jones protein was detected.

Beware!

Localized amyloidosis can present as bilateral breast masses, clinically and radiologically mimicking carcinoma. [Dx](#)

References

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