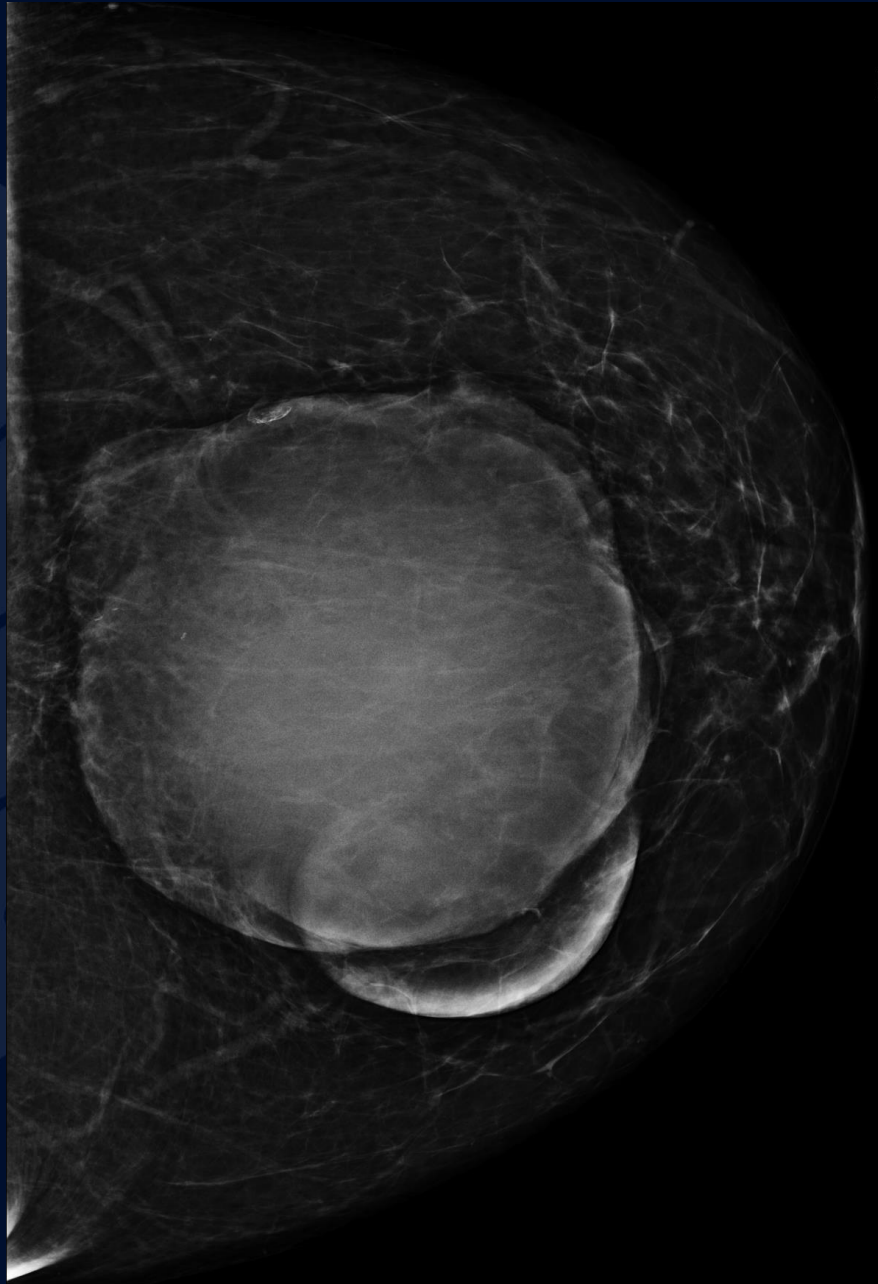


57 year old woman with a large left breast mass protruding through her skin and associated with bleeding

Elena G. Violari M.D., Robert Perez M.D.,
and Alex Merkulov M.D.

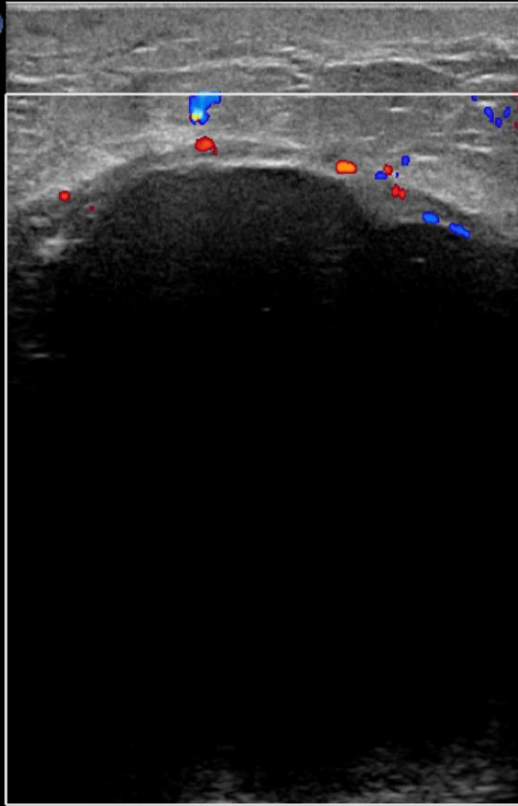




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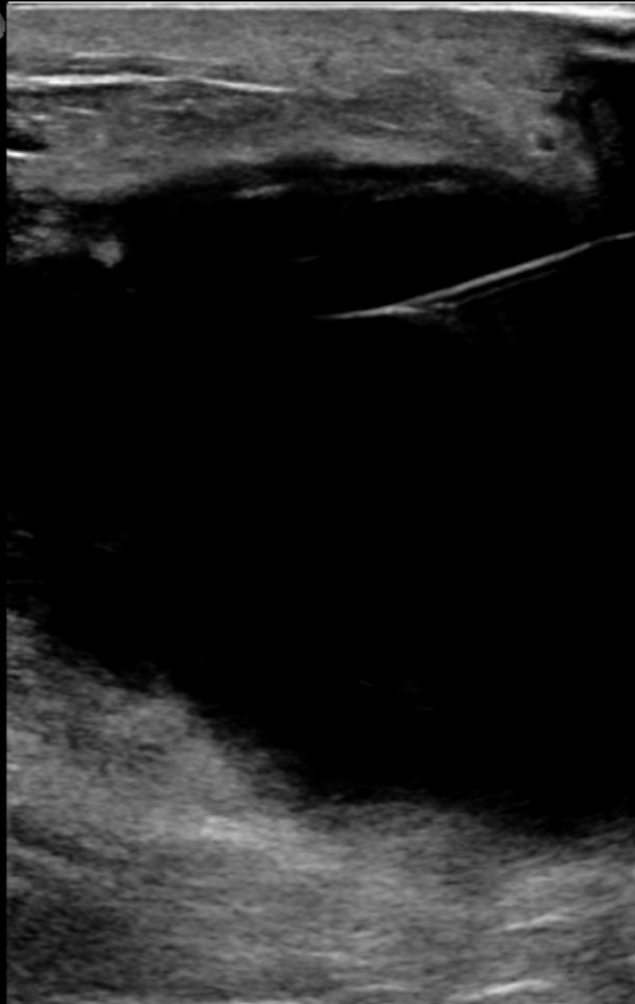


TRV

LT BREAST UPPER QUAD UNDER BANDAGE

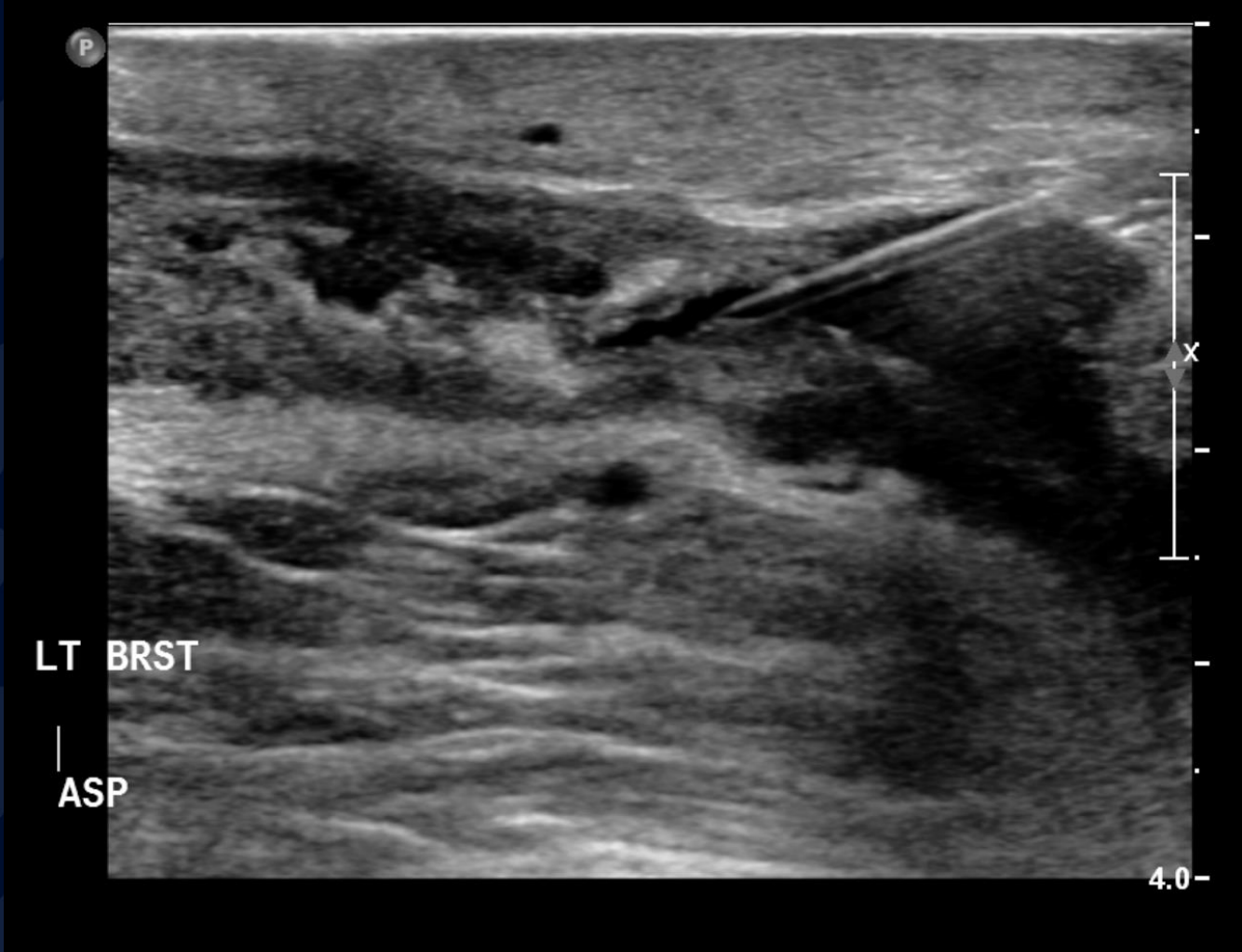
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LT BRST
SAG
LUOQ
1-2

ASP

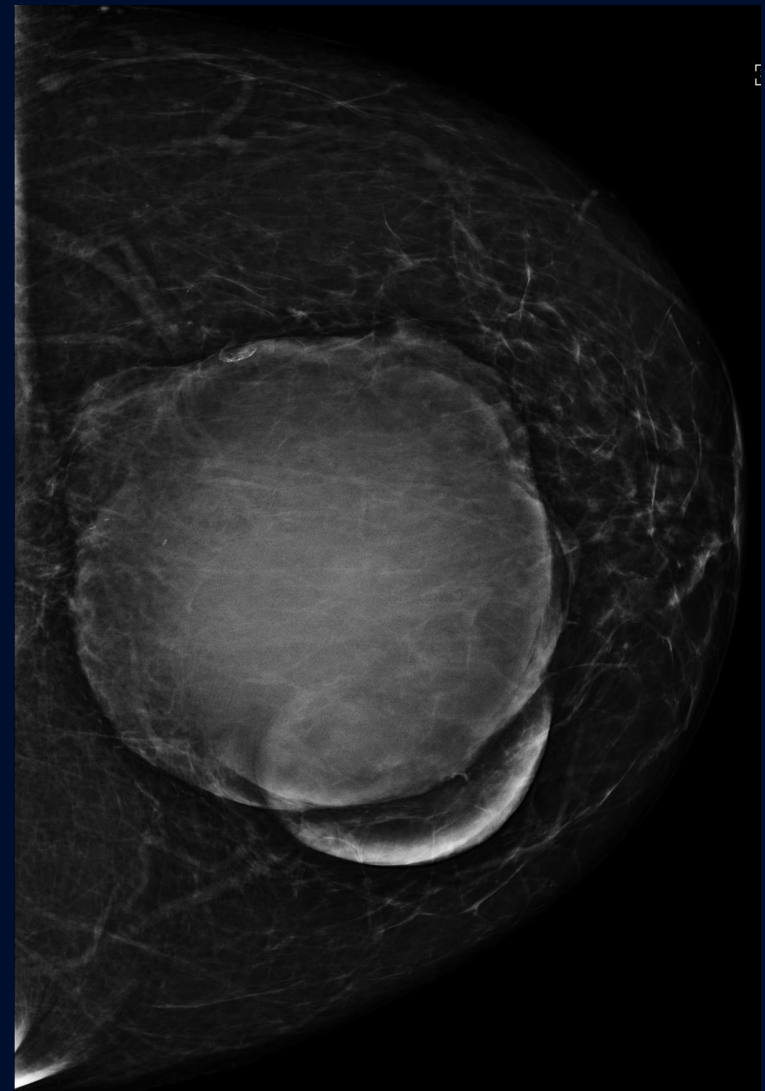
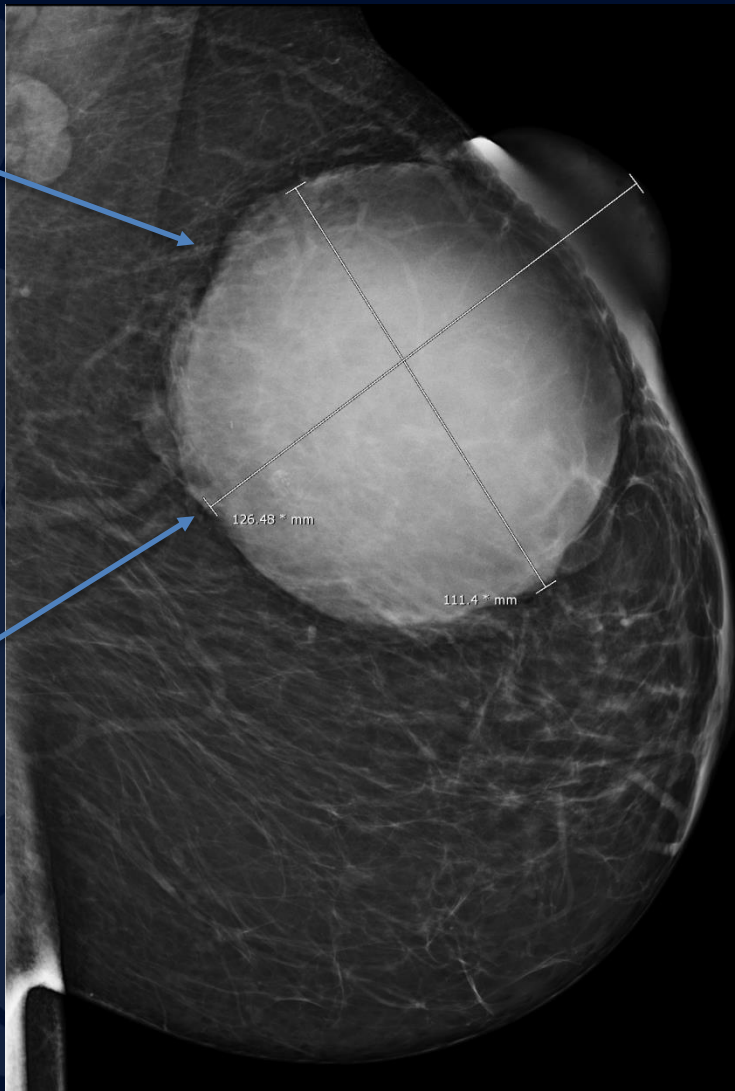


A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

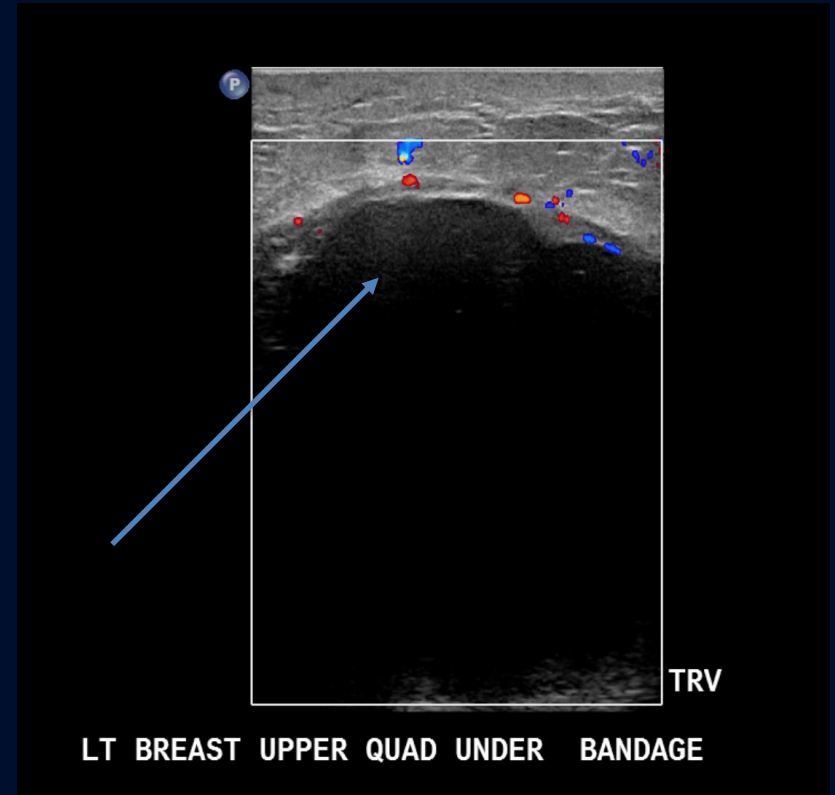
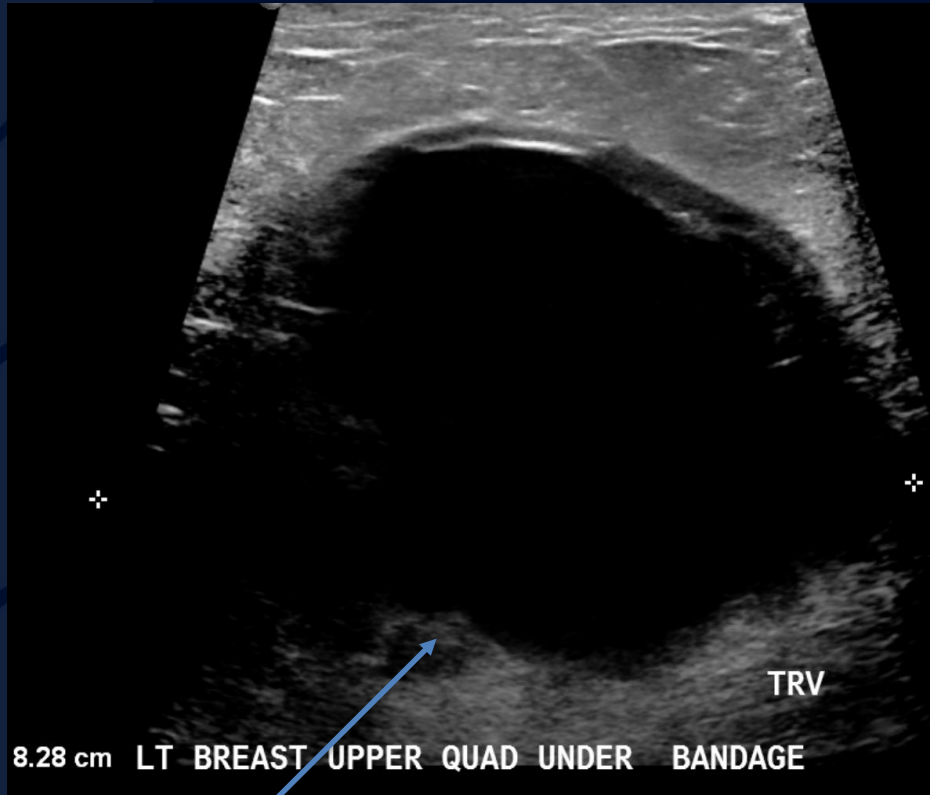
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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off, with a serrated edge.

Metaplastic Breast Carcinoma

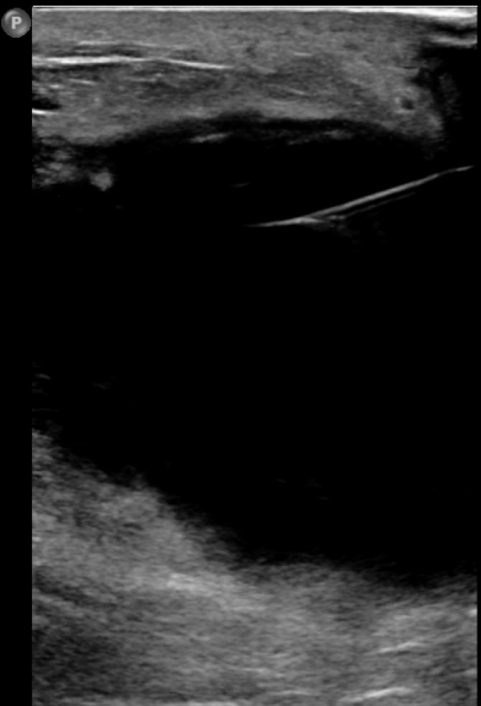


MLO and CC views: Large circumscribed left breast high density mass with irregular margins is protruding through the skin



Grayscale and Doppler ultrasound images demonstrate a large complex cyst with a thick wall and echogenic internal material.

12



LT BRST
SAG
LUOQ
1-2
ASP



LT BRST
ASP

Ultrasound guided aspiration of the complex cyst produced 400 cc of bloody fluid. Residual soft tissue components are noted within the collapsed mass.

Metaplastic Breast Carcinoma

Also known as spindle cell carcinoma of the breast (SpCC).
Rare form of primary breast malignancy (< 5% of breast CAs).

Epidemiology:

Usually seen in women who are more than 50 years old with average age at diagnosis ~55 years.

Clinical presentation

Palpable mass lesion (often rapidly growing).

[Axillary node](#) involvement at the time of diagnosis is uncommon.

Metaplastic Breast Carcinoma

Pathology: Ductal carcinomas that undergo metaplasia to a glandular growth pattern.

Five variants:

- Matrix producing carcinoma of breast
- Squamous cell carcinoma of breast
- Spindle cell carcinoma of breast
- Carcinosarcoma of breast (the rarest primary breast malignancy)
- Metaplastic carcinoma of breast with osteoclastic giant cells

Histology

- Features of both carcinoma and sarcoma
- Mixture of glandular epithelial elements and mesenchymal malignant elements
- Spindle cell component in 98% of SpCC is immuno-reactive for keratin

Metaplastic Breast Carcinoma

Mammography

- High density
- Rounded densities on mammography with margins that are both well defined and smooth, irregular, and spiculated
- Mean diameter at the time of diagnosis is 4.2 cm
- Calcification is very rare

Ultrasound

- Complex echogenicity
- Solid and cystic components are related to necrosis and cystic degeneration found histopathologically

Breast MRI

- T2: often displays very high signal intensity

Metaplastic breast carcinoma

Prognosis:

- Survival depends on tumor size, histologic type, grade, lymph node status, and perhaps most directly on the type and grade of the mesenchymal component
- Overall 5-year survival rate is approximately 40%
- Chemotherapy is usually directed toward the sarcomatous component of the disease on the basis of the patterns of metastases
- Local recurrence is fatal in ~30% of cases

References:

1. Günhan-Bilgen I, Memiş A, Ustün EE et-al. Metaplastic carcinoma of the breast: clinical, mammographic, and sonographic findings with histopathologic correlation. *AJR Am J Roentgenol.* 2002
2. Choi BB, Shu KS. Metaplastic carcinoma of the breast: multimodality imaging and histopathologic assessment. *Acta Radiol.* 2012
3. Park JM, Han BK, Moon WK et-al. Metaplastic carcinoma of the breast: mammographic and sonographic findings. *J Clin Ultrasound.* 2000
4. Shin HJ, Kim HH, Kim SM et-al. Imaging features of metaplastic carcinoma with chondroid differentiation of the breast. *AJR Am J Roentgenol.* 2007