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

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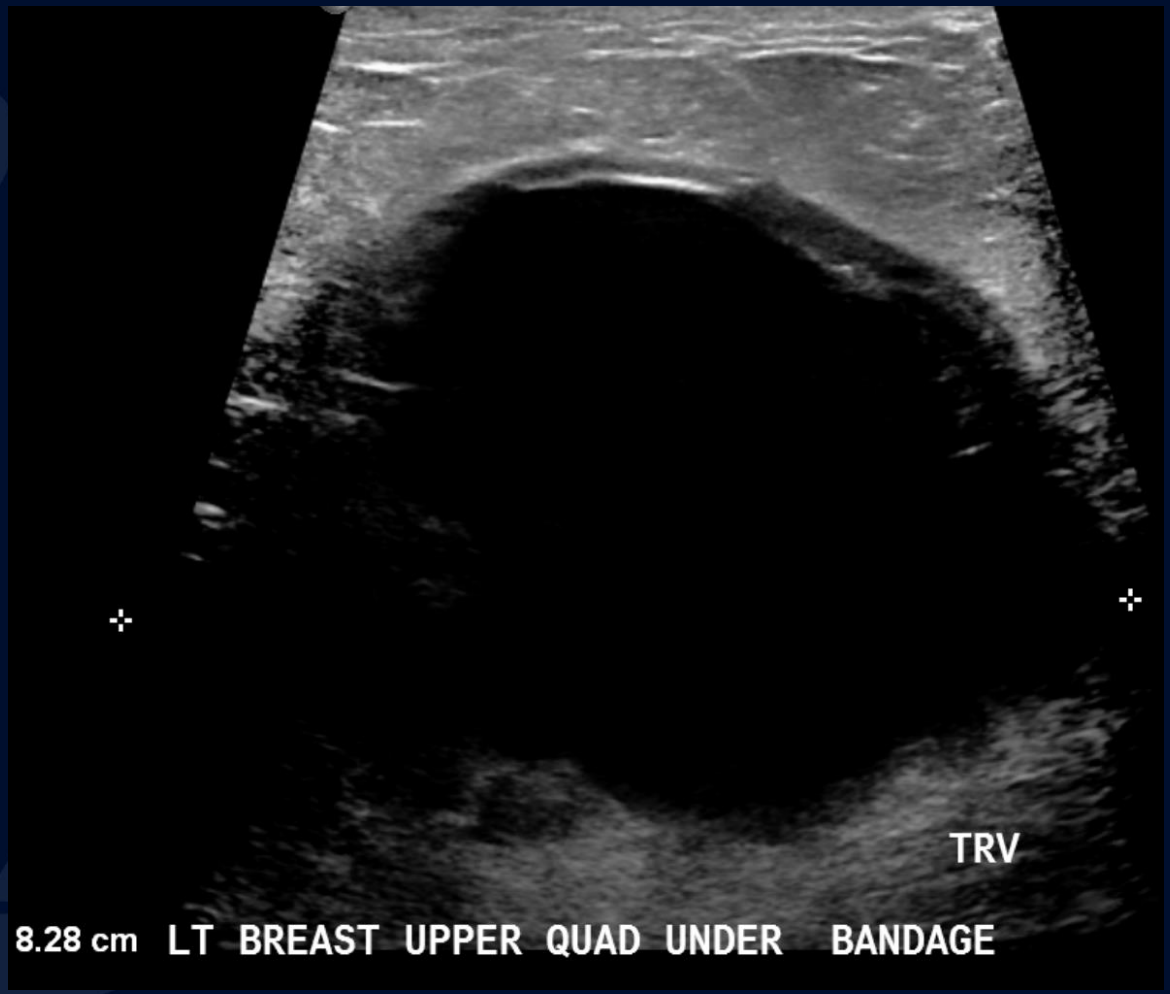

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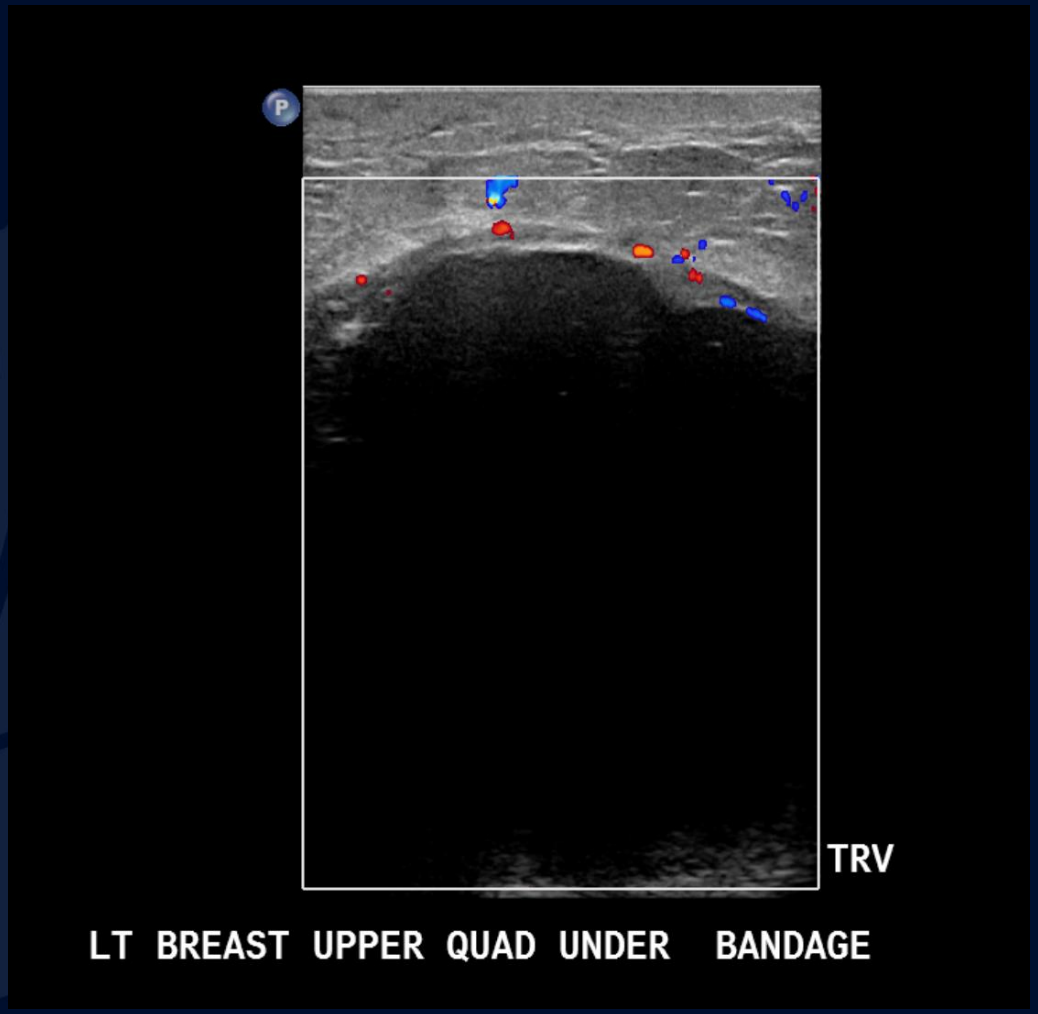

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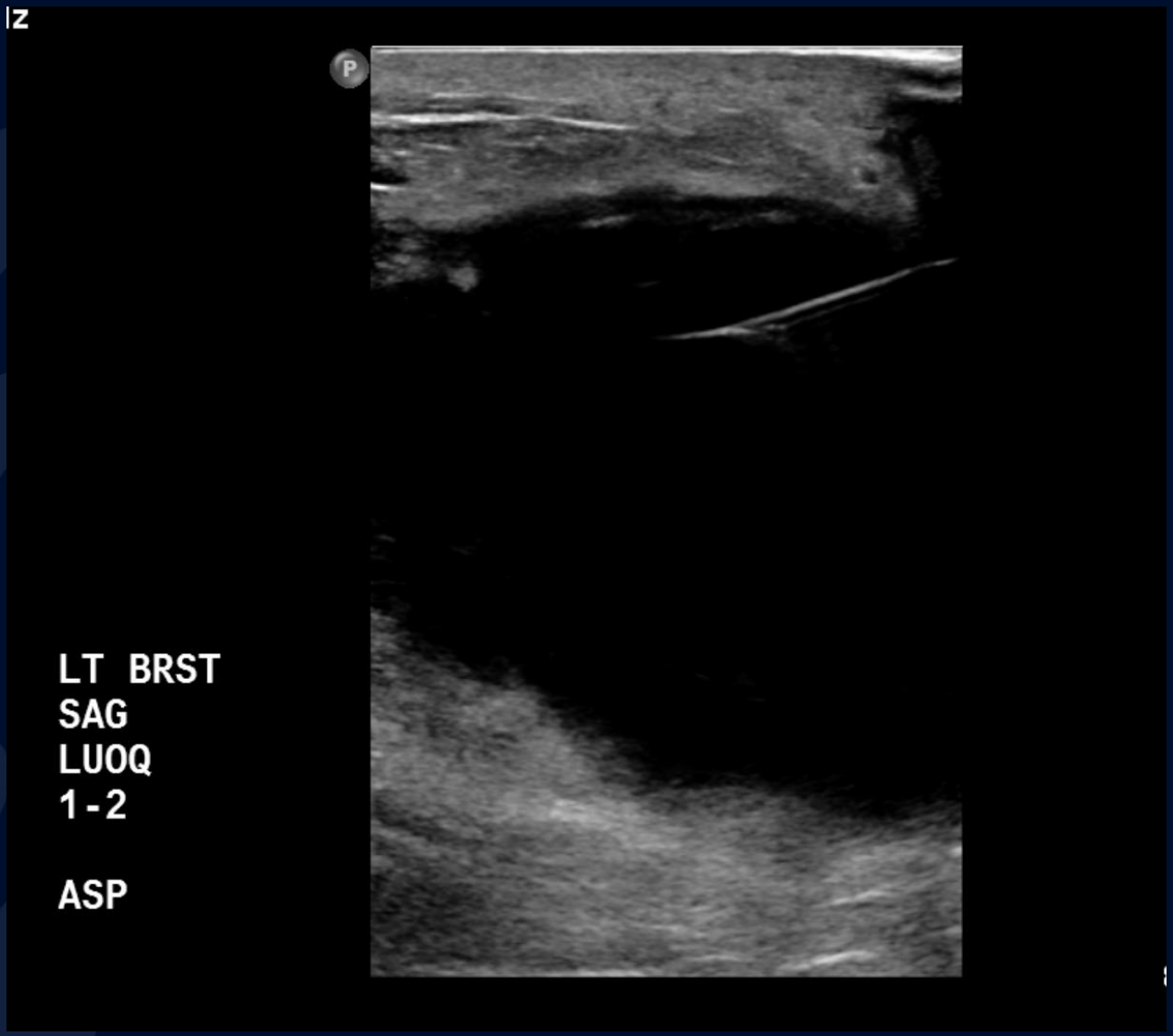

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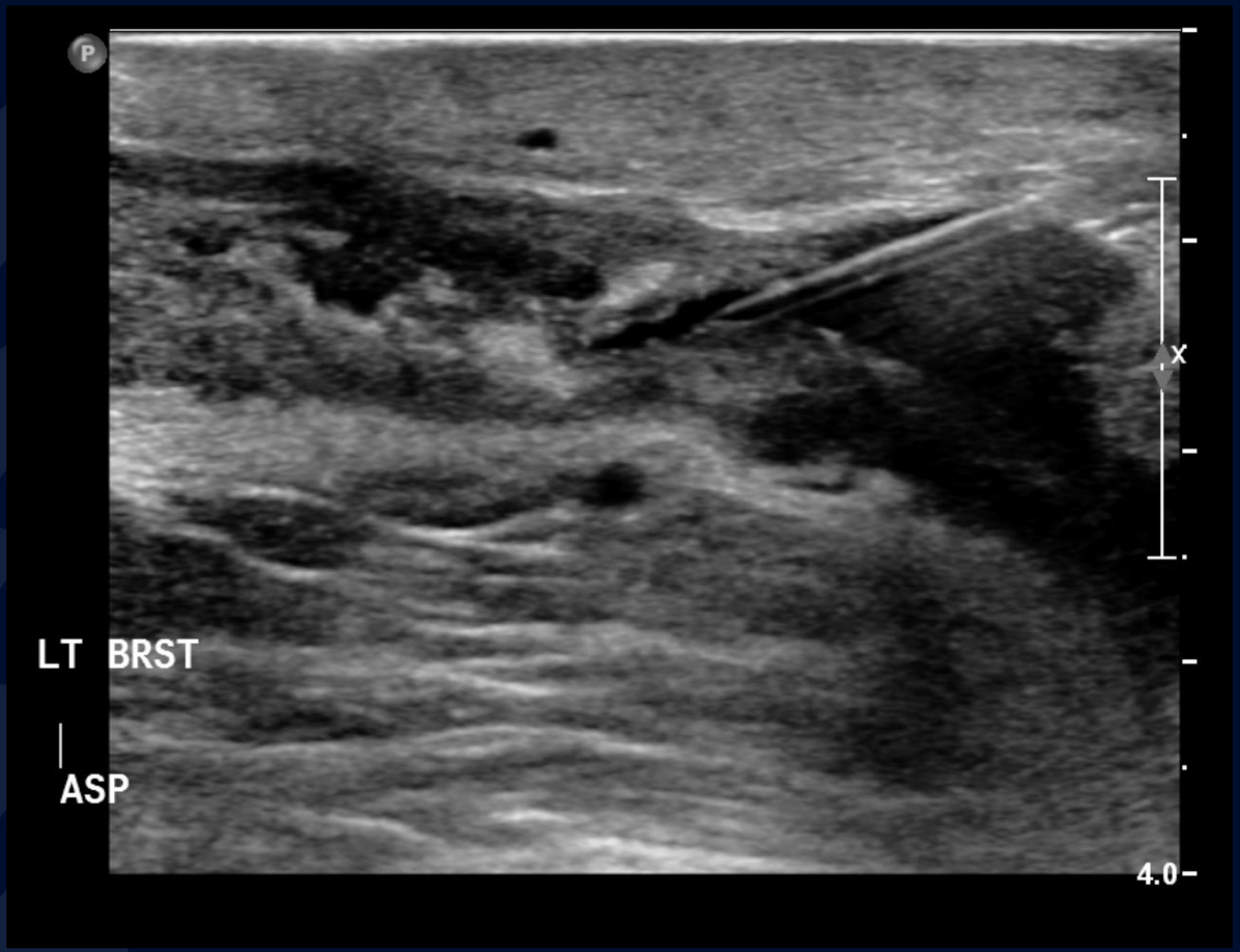

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Metaplastic Breast Carcinoma

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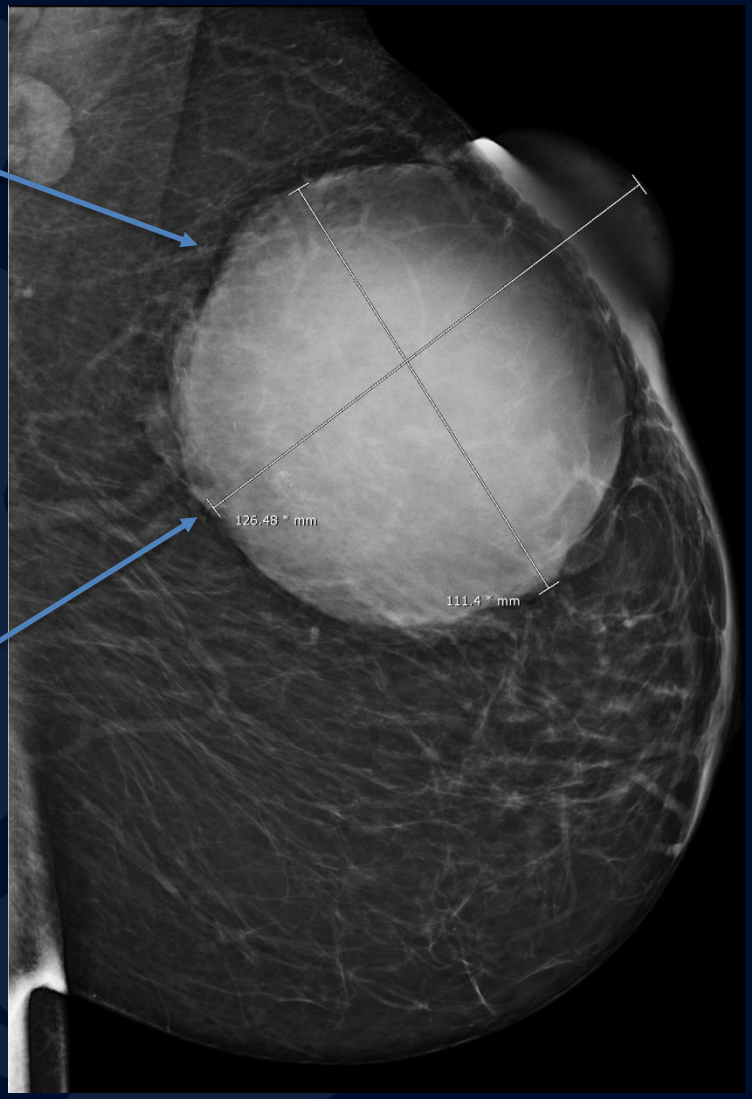

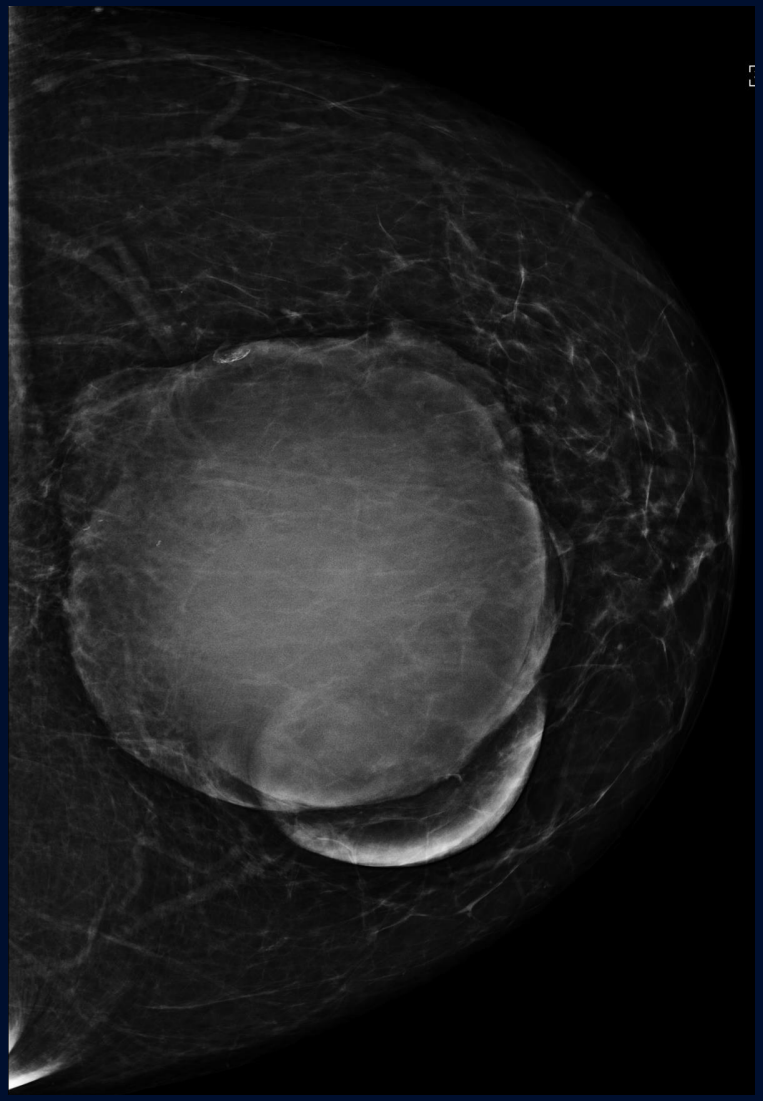

MLO and CC views: Large circumscribed left breast high density mass with irregular margins is protruding through the skin

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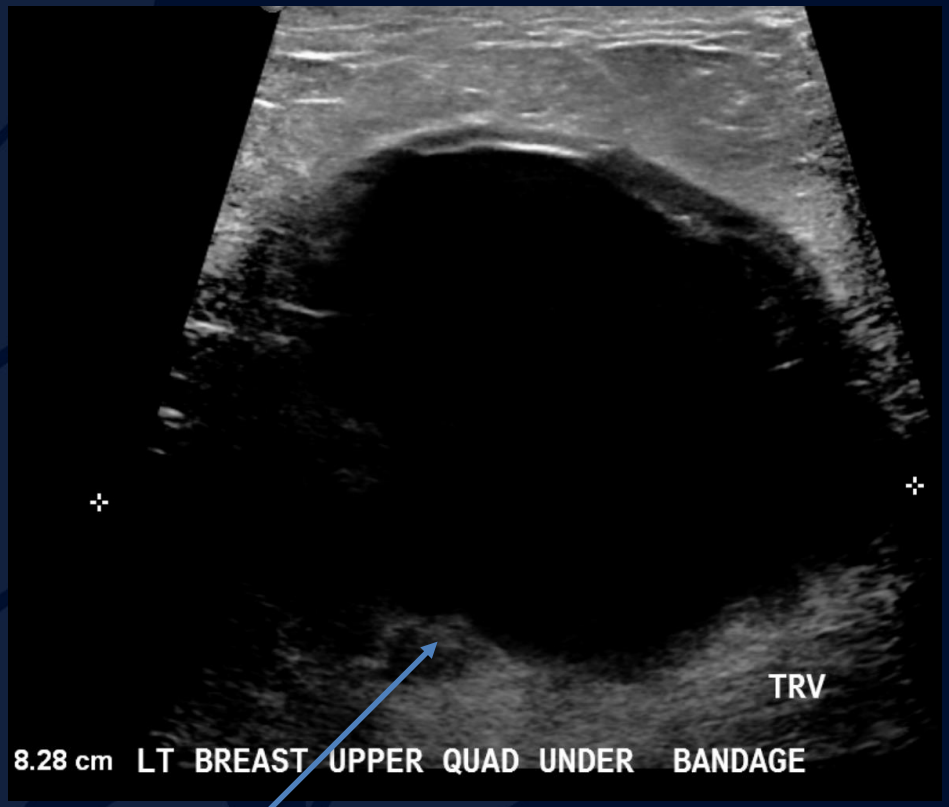

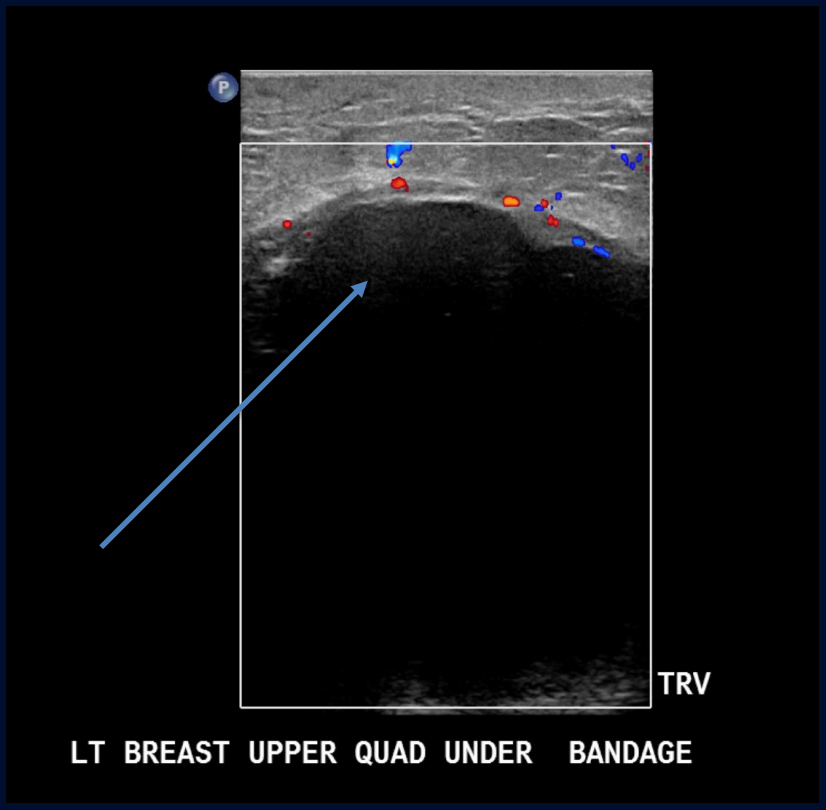

Grayscale and Doppler ultrasound images demonstrate a large complex cyst with a thick wall and echogenic internal material.

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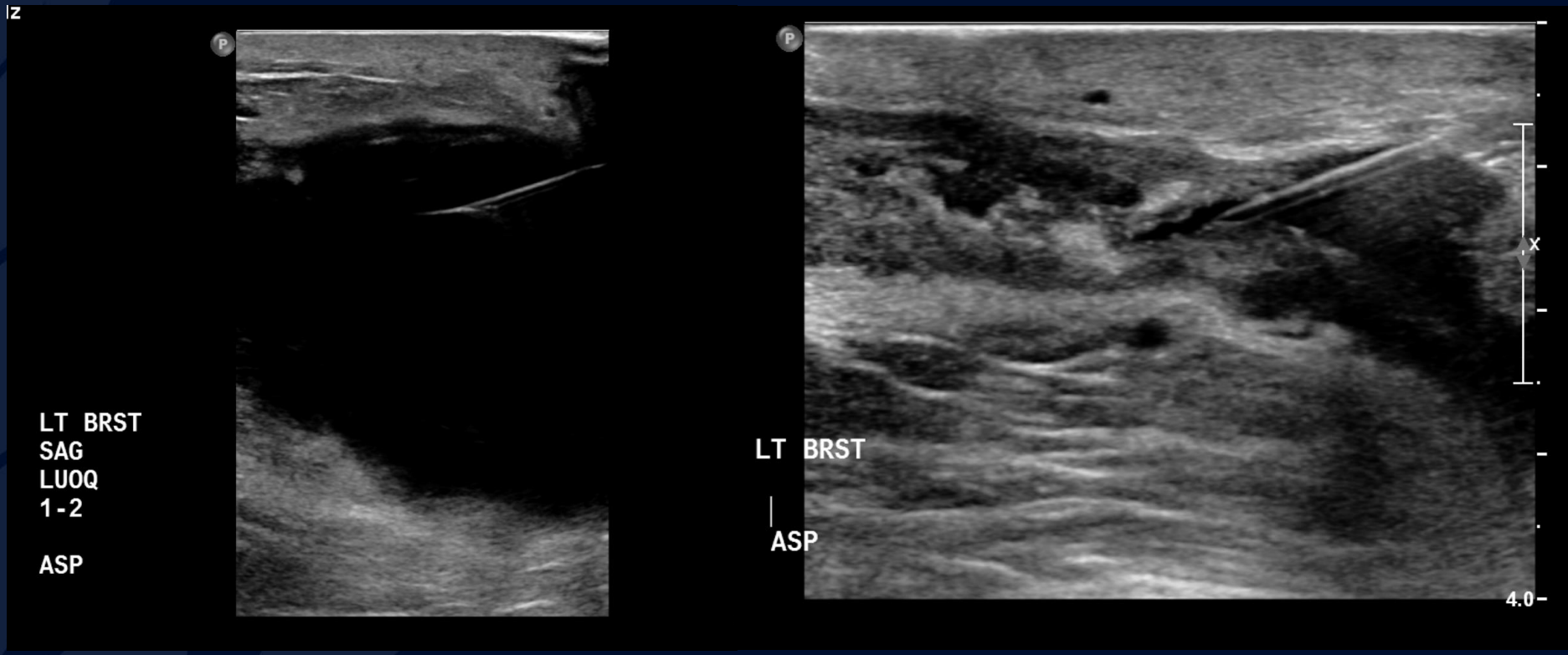

Ultrasound guided aspiration of the complex cyst produced 400 cc of bloody fluid. Residual soft tissue components are noted within the colapsed mass.

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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.

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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**

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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

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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**

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