Interesting Cases

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Case 1
History

• 52 y.o
• Self detected lump left breast increasing in size for 2 weeks
• Previous history of breast cysts
• Nil PMHx/FHx/DHx
• Ex- heavy smoker 80/day
• Ongoing Cough and recurrent LRTI
Clinical findings

P2 1cm smooth firm rounded mobile lump LUOQ
Ultrasound

- Normal axilla
Contralateral Ultrasound
Relook Mammo
Differential diagnosis

• **Multifocal bilateral breast process**

• **Diffuse metastases from non-breast primary**
  – Melanoma
  – Lung (ex-smoker ++)
  – Lymphoma (less likely as normal axillary LNs)

• **Bilateral multifocal primary breast cancer**

• **Diffuse non-malignant disease process**
  – Sarcoidosis
  – Wegeners granulomatosis
  – TB
Biopsy Pathology

Poorly differentiated carcinoma with some neuroendocrine differentiation. This could well represent a metastatic deposit rather than breast primary, but we cannot comment on the possible primary site.

• B5b / B5d
CUP. Further imaging
Conclusion:

- Disseminated metastatic disease with destructive bony lesions associated with soft tissue masses in the ribs.
- Lytic and sclerotic bony metastases seen throughout.
- Pulmonary, peritoneal, breast and subcutaneous nodules, and a 2.5 cm retroperitoneal mass.
- No pancreatic or definite bowel lesion demonstrated.

- **Diffuse metastatic Neuroendocrine tumour (NET) with unclear primary site.**
Outcome

- Disease *progressed rapidly*
- Died *3 months* after the initial breast biopsy
Case 2
History

- 56 y.o
- Self detected right breast lump increasing in size over 1 month
- Previous right sided parotidectomy for benign tumour (pleomorphic adenoma) 7yrs ago.
- Otherwise fit and well
Clinical Findings

**P3** 2cm hard mobile lump RUOQ
Ultrasound
Biopsy Pathology

• Tumour exhibiting spindle cell morphology and abundant myxoid stroma.

• Myoepithelial Cancer

• ? Primary Breast Myoepithelial Ca
• ? Metastatic deposit

• B5b/B5d
Pleomorphic Adenoma

- The most common salivary gland tumours.

- There is a small risk of malignant transformation into a carcinoma ex-pleomorphic adenoma.

- Aggressive and infiltrating.

- High rate (75%) of metastasis at time of diagnosis.
MRI Head & Neck
Teaching Points
• Metastatic spread to the breast from other solid organs is rare with a reported incidence of 0.2 to 1.3% of all breast malignancies (Lee et al, 2000).

• In most instances secondary involvement of the breast is part of widely disseminated metastatic disease that occurs late in the course of primary disease.

**BUT.**

• Breast metastasis may be the first manifestation of malignant disease, or the first site of metastatic disease from a known primary malignancy.

Mets to the breast can arise from *any* primary

**Most common**
- Melanoma
- Lung
- Ovary
- Gastrointestinal

**Less common**
- NET/Carcinoid
- Salivary Gland Ca
- Hypernephromas
- Liver Ca
- Pancreatic Ca
- Cervical Ca
- Endometrial Ca
- Bladder Ca

Typical findings - clinical

- Majority **single** palpable mass
- **Bilateral in 15%**
- **Superficial**, sharply outlined, discrete, mobile
- Predilection for the **upper outer quadrant**
- Skin and nipple changes absent.
- **Rapid growth** may be a clue suggesting the possibility of blood borne metastasis

Typical findings- Mammographic

- Well demarcated
- Dense for size
- No microcalcification

DD:
- WD Malignancy
  - HG, Papillary, Mucinous
- Benign
  - FA, Cysts

Typical findings- US

- **Superficial**, subcutaneous
- **Well circumscribed**
- **Lack desmoplastic reaction**, high cellularity incites inflammatory response
- **Peritumoural oedema** (increased echogenicity)
- **Central hypoechoic core** (Rapid growth causes ischaemia and necrosis)
- Normal to enhanced through transmission
- Hypervascular on Doppler.
End

This way, Heart.