Parathyroid Cysts - An Unusual Cause for Primary Hyperparathyroidism

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Patient 1

- 50 ♂ - Incidental finding of raised calcium
  - Ultrasound neck - 1.2x1.5cm left sided nodule and 3.3x3.2x1.7cm right sided cystic mass
  - Isotope MIBI negative
  - Left nodule removed
    - Histology - thyroid nodule and normal parathyroid gland
  - Recurrent severe hypercalcaemia with AKI
  - Right sided lesion re-visited

Patient 2

- 73 ♂ - Incidental finding of raised calcium
  - Asymptomatic but serial rise on monitoring
  - Ultrasound neck - 3.5x4.4cm right sided cyst
  - Isotope MIBI scan normal
  - DEXA normal

CT images of septated cystic neck lesion

CT images of cystic neck lesion

- Cyst fluid aspirated and sent for PTH analysis
  - PTH > 200pmol/L
  - Awaiting surgical removal

Key Learning Point

If your patient has primary hyperparathyroidism with a cystic neck mass, consider aspirating it and send fluid for PTH analysis.

Parathyroid Cysts

First described in 1880
Around 300 cases reported
Rare: 0.5-1% of parathyroid lesions are cysts. Of these, only 10-15% functional
Can present with incidental neck lump or primary hyperparathyroidism
Only 29% positively identified on isotope MIBI scan - not sensitive for cysts
Key to diagnosis is markedly raised PTH in aspirated fluid
Treatments for non-functional cyst include aspiration or ethanol ablation
Definitive treatment for functional cyst is surgical excision - indication same as hyperparathyroidism
Malignant transformation rare

References