The role of cinacalcet in a patient with persistent hypercalcaemia despite parathyroidectomy

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BACKGROUND
Parathyroid adenoma is the commonest cause of primary hyperparathyroidism, but 10% of these adenomas can be ectopic, leading to persistent and recurrent hypercalcaemia.

CASE REPORT
We present a case of 82 years old man who was admitted in June 2011 with increased confusion, slurred speech, poor balance (ataxia). He had no features of sepsis and no other focal neurology. His past medical history included constipation, dry eyes. He was on Aspirin, hypomellrose, and laxido. Blood tests: Hb 15.2g/L, WCC 8.3, Na+ 138mmol/L, K+ 4.4mmol/L, Urea 4.9mmol/L, Creatinine 84μmol/L, ALP 70 iu/L, Cor ca2+ 3.12mmol/L, PTH 9.6, phosphate 0.79mmol/L, ALT 100, Myeloma screen negative, Vitamin D 100, Urine: 24 hour urinary calcium 8.2.
Imaging: CXR normal, CT head normal, sestamibi scan and parathyroid US normal.

Case progression:
- He underwent exploratory surgery left sided parathyroidectomy with normalisation of calcium levels initially. Normal looking parathyroid tissue (140g).
- One month later he had relapse of hypercalcaemia. Readmitted for IV fluids & pamidronate Staging CT chest, abdomen and pelvis-normal apart right subcapina lymphnode measuring 11mm. He remained hypercalcaemic despite multiple doses of IV Pamidronate(Fig 1). He was started on cinacalcet 30mg od daily for ectopic parathyroid adenoma with normalisation of calcium corrected calcium 2.34mmol/L

DISCUSSION:
85% of the cases of primary hyperparathyroidism are due to the adenoma. In about 10% of cases, parathyroid adenomas can present in ectopic locations. The majority of ectopic parathyroid adenomas are located in the anterior mediastinum.
Ectopic parathyroid adenomas are usually very small and difficult to localise causing diagnostic challenges and require various imaging modalities.
Conservative approach should be considered in those patients with comorbidities.
Ectopic parathyroid adenoma is the commonest cause of unsuccessful surgery with persistent hypercalcaemia. Cinacalcet may be used in symptomatic patients with hypercalcaemia due ectopic parathyroid adenomas as demonstrated in our case report.

CONCLUSION:
- Ectopic parathyroid adenomas although rare are not uncommon and one has to include in differential diagnosis.
- Conservative treatment is preferred in asymptomatic patients.
- Cinacalcet can successfully be used to control hypercalcaemia in patients with persistent and recurrent hypercalcaemia due ectopic parathyroid adenoma as demonstrated in this case report.

REFERENCES