

## AB206. 81. Three gland parathyroid adenoma as a rare cause of primary hyperparathyroidism—a case report

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**Background:** Primary hyperparathyroidism (PH) is a common endocrine condition, with an estimated prevalence of 7 in 1,000 in the general population. In most patients, a single, benign adenoma is responsible for the disease, but in a very small percentage of patients multiple gland adenoma (two gland mostly but very rarely three gland) is evident.

**Methods:** We present a case of a 77-year-old female who was diagnosed with symptomatic PH. Parathyroid hormone (PTH) was raised at 162 pg/mL (normal up to 65) & Calcium was raised at 2.82 mmol/L (normal 2.1–2.6), consistent with biochemical PH. Sestamibi scan on the day of surgery was not very conclusive for a single gland

adenoma.

**Results:** The above female underwent a minimally invasive radio guided parathyroid surgery. All four parathyroid glands were explored. Three glands were found to be enlarged secondary to an adenoma and were excised—the right upper and right lower and left lower parathyroid glands. The remaining left upper parathyroid gland was identified and found to be normal. Intra-operative PTH had a significant drop from 188 to 54 after excising three adenomas. Frozen section and subsequent final pathology of all three glands showed an enlarged, hyper cellular parathyroid gland consistent with three gland adenomas. The surgery was biochemically and symptomatically effective and the patient was discharged home day one post operatively.

**Conclusions:** This is a novel case of a 77-year-old female undergoing a minimally invasive radio-guided parathyroidectomy (MIRP) MIRP for PH who was found to have three gland parathyroid adenoma.

**Keywords:** Minimally invasive radio-guided parathyroidectomy (MIRP); primary hyperparathyroidism (PH); three gland parathyroid adenoma

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