

# AB120. SOH21AS182. Evaluation of the relationship between primary hyperparathyroidism and concomitant thyroid nodules at a specialist endocrine surgery centre

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**Background:** While it known that thyroid disease is associated with primary hyperparathyroidism (PHPT), it is yet to be determined whether the concomitant presentation of PHPT and thyroid cancer is coincidental, causal, or due to their intimate anatomical relationship. It is known that routine screening of the parathyroid glands simultaneously incorporates evaluation of the thyroid gland and that preoperative diagnostic imaging for localizing parathyroid adenomas can also detect thyroid nodules. The aim of this study was to evaluate the incidence of thyroid cancer in patients with PHPT based on the detection of thyroid nodules from non-invasive imaging.

**Methods:** This was a retrospective study on a prospectively maintained database. All patients in the department of endocrine surgery at Cork University Hospital with pre-existing PHPT who had undergone a minimally invasive radio-guided parathyroidectomy (MIRP) surgery between July 2018 to September 2020 were included. Radiology and cytology results were assessed using IMPAX and iLab softwares respectively.

**Results:** During this 2-year period, a total of 84 patients underwent MIRP surgery. The mean age was 61 years (range, 21–79 years), with majority of the patients being female (74%). Preoperative ultrasounds done for the work

up of PHPT showed that the incidence of thyroid nodules was 19% (16/84). Majority (15/16) of these thyroid nodules were benign (94%) while one was malignant (6%) on subsequent fine needle aspiration cytology (FNAC).

**Conclusions:** Implementing routine ultrasound imaging preoperatively enables the detection of incidental thyroid nodules and possible thyroid cancers in patients with PHPT.

**Keywords:** Primary hyperparathyroidism (PHPT); thyroid nodules; thyroid cancer

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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