
Tilmelding af Foredrag

Foredragets titel

Fluorescence and intraoperative PTH predicts hypoparathyroidism after total thyroidectomy – an ongoing study.

Forfatter(e)

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Uddannelsesniveau

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Introduktion

Total thyroidectomy is a common procedure in Denmark. The procedure carries a low risk of nerve damage but a higher risk of hypoparathyroidism (hypoPT). The frequency is estimated to be around 10% due to unintended damage to the parathyroid glands or their blood vessels. We aimed to examine the frequency of immediate postoperative hypoPT after total thyroidectomy. Further, we evaluated prediction of hypoPT with use of intraoperative measures of parathyroid hormone (ioPTH) and fluorescence with indocyanine green (ICG).

Materiale/metode

From May to December 2021, we included patients in an ongoing prospective study with total thyroidectomy and use of both fluorescence and ioPTH measures. We defined immediate postoperative hypoPT as patients with a need of alfacalcidol at discharge. We performed biochemistry before and after all operations and ioPTH measurements. We scored each visible parathyroid gland according to the fluorescent output from 0 - 2 with a higher score corresponding to better blood supply.

Resultater

We included 42 consecutive patients. Five patients (12%) needed treatment with alfacalcidol at discharge. Only one patient (2%), needed alfacalcidol after 2 months. No patients needed treatment with alfacalcidol when ioPTH levels decreased less than 75%. In operations with more than 75% ioPTH decrease, 31% needed alfacalcidol ($p=0.002$). No patients needed alfacalcidol after 2 months when having at least one gland with maximum ICG uptake ($p=0.005$), however, one patient needed alfacalcidol at discharge despite maximum ICG uptake.

Diskussion

In the present cohort there was a low rate of hypoPT and ioPTH decrease clearly predicted immediate postoperative hypoPT. Fluorescence with ICG further confirmed, that one healthy parathyroid gland is sufficient to prevent long term hypoPT.

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