Presentation 7. Are all parathyroidectomies the same? A comparison of morbidity of parathyroid surgery in primary and secondary hyperparathyroidism

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Introduction: Parathyroid surgery is a safe reliable procedure where morbidity is considered rare. No study exists to date specifically comparing complication rates between primary and secondary hyperparathyroidism patients treated with surgery. The aim of this study is to compare complication rates between these 2 groups and establish if there is a predictive pattern.

Methods: Data for patients subjected to parathyroidectomy during the period 2007-2013 were retrospectively analyzed. Patient age, sex, ASA score, renal status, and type of operation were examined. The complication and mortality rate were compared and independent predictors of outcome were examined.

Results: 825 patients underwent conventional (non minimally invasive) parathyroid surgery during the study period of whom 139 had renal related hyperparathyroidism and 686 had primary disease. In 130 patients a unilateral approach was used with intraoperative PTH, while in 694 a bilateral neck exploration was performed. There was a significant difference in mortality (1.4% vs 0.1%, p=0.02), overall complication rate (7.9% vs 2%, p<0.001), surgery related complication rate (5% vs 1.6%, p=0.01) and systemic complication rate (2.9% vs 0.4%, p=0.004) between the groups with all risks being higher in the renal hyperparathyroidism group.

There was no difference in complications between unilateral and bilateral operations. Renal patients had significantly higher ASA scores.

In patients with ASA score ≤2 re-operative surgery, age and the extent of operation were not significant predictors of complications; but male sex (OR 3.86, 95% CI 1.14-13.04) and the presence of renal impairment were (OR 5.13, 95% CI 1.48-17.8). In patients with ASA score ≥3 renal impairment, as well as the rest of the variables were not predictors of complications.

Conclusions: Parathyroid surgery is a safe reliable procedure where morbidity is considered rare. No study exists to date specifically comparing complication rates between these 2 groups and establish if there is a predictive pattern.

Doi of original article: http://dx.doi.org/10.1016/j.ejso.2014.07.017

Presentation 8. Prophylactic central compartment neck dissection is not routinely indicated in follicular thyroid cancer

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Background: Follicular thyroid cancer (FTC) poses a challenge both in diagnosis and management. Classically impossible to distinguish from follicular adenoma on cytology, it also behaves pathologically distinctly from other differentiated thyroid cancers. Recently published studies have called for routine prophylactic central lymph node dissection (PCND) in differentiated thyroid cancer, although the majority of this evidence comes from papillary thyroid cancer. We aimed to study the value of PCND in FTC.

Method: Between 2000-2010, 42 patients were identified with a diagnosis of follicular thyroid cancer (FTC) (n=36), or Hurthle cell cancer (HCC) (n=6). Mean age was 50.7 years. Gender ratio was 12 male: 30 female. Retrospective review of clinical and pathological stage, operative approach, and long term follow up was conducted.

Results: 24 of 42 (57%) patients were identified as thy 3 preoperatively. The remainder had frankly suspicious cytology (thy 4/5), presented with metastatic disease, or were discovered as an incidental finding.

19 patients (45%) identified as thy3 preoperatively underwent PCND. All had negative nodes.

3 patients (P1-P3) had clinically or radiologically suspicious nodes at presentation. P1 had level II-IV ND and P2 had a CND; both were node positive. P3 was treated palliatively.

5 patients who did not undergo PCND had suspicious lesions flagged at radiological follow up. All underwent CND; all had negative nodes.

5 patients developed recurrent disease. 3 of these patients had undergone PCND (recurrence rate with PCND= 16%; without PCND = 10%). All 5 patients underwent further neck dissection; all were negative for nodal recurrence.

Conclusions: In this series, PCND had a 0% yield of positive nodes in the absence of preoperatively suspicious features. Given the potential for additional morbidity from CND and low risk of nodal disease in FTC, we would recommend further study of its usefulness in FTC before routine adoption.

Doi of original article: http://dx.doi.org/10.1016/j.ejso.2014.07.019