OA-T-06

INCIDENCE AND PREDICTORS OF POST-THRYOIDECTOMY HYPOCALCEMIA

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INTRODUCTION
Post-thyroidectomy hypocalcemia is common but variably reported. We studied the incidence and predictors of post-thyroidectomy hypocalcemia in our population.

METHODOLOGY
Two hundred seventy-seven patients, who underwent thyroidectomy for either a benign or a malignant thyroid condition at the University Medical Center, Ho Chi Minh city, Viet Nam, were prospectively studied from November 2017 to April 2018. Blood samples for serum calcium and albumin were collected before, and on the first postoperative day (POD1). Patients with preoperative hypocalcemia were excluded. Clinical examination, extent of thyroidectomy, and histopathological diagnosis were recorded. Postoperative hypocalcemia was defined as corrected plasma calcium value <2.1 mmol/L.

RESULTS
The median age of the 277 patients was 41 years (range: 17-74 years). 186/277 (81.9%) were female. Hypocalcemia on POD1 was recorded in 117 patients (51.5%), among whom 85 (72.6%) were symptomatic. Hypocalcemic symptoms developed on POD1 itself in 66 out of the 85 patients (77.6%) who were symptomatic. Interestingly, 32 out of the 117 patients (27.4%) who had hypocalcemia were asymptomatic. In multivariate analysis, age < 50 years (OR 2.2, 95% CI 1.1 – 4.1, p=0.012), preoperative plasma calcium value (OR 0.023, 95% CI 0.001 – 0.456, p=0.013) and total thyroidectomy (OR 2.1, 95% CI 1.0–4.5, p=0.047) were statistically significant predictors of post-thyroidectomy hypocalcemia.

CONCLUSION
Hypocalcemia is common after thyroidectomy (51.5% of patients on POD1). Age less than 50 years, low preoperative plasma calcium value, and total thyroidectomy were the significant predictors of post-thyroidectomy hypocalcemia.

KEY WORDS
hypocalcemia, hypoparathyroidism, thyroidectomy

OA-T-07

USE OF CHOLESTYRAMINE AS ADJUNCT FOR HYPERTHYROIDISM – A META-ANALYSIS

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INTRODUCTION
Hyperthyroidism is defined as a state produced by excessive thyroid function. Such can lead to thyrotoxicosis which is defined as a state of excessive thyroid hormone. There are several etiologies of thyrotoxicosis, all of which are due to hyperthyroidism. In a state of thyrotoxicosis, there is an increased production and metabolism of thyroid hormones leading to an increase in its enterohepatic circulation. Cholestyramine is generally used for the treatment of hypercholesterolemia; however, it can also be used as an adjunctive therapy for hyperthyroidism by decreasing gut reabsorption and increasing excretion of thyroid hormones.

OBJECTIVE
To assess evidence from randomized controlled trials (RCTs) regarding the efficacy of using Cholestyramine as an adjunct to anti-thyroid medications in its effect to decrease Total T3 and FT4 levels in hyperthyroid patients.

METHODOLOGY
A review of articles using PubMed and Cochrane (CENTRAL) was done. Search terms used were *cholestyramine, bile acid binding resin, hyperthyroidism, Graves' disease*. Randomized controlled trials were evaluated regarding the effect of cholestyramine as an adjunct to standard treatment. Studies included are limited to randomized controlled trials, with patients of interest are those diagnosed with hyperthyroidism. Studies were assessed for risk of bias and data extraction was done by primary author and reviewed with co-author. Data analysis was done, summary statistics using mean difference, and forest plots were generated using Review Manager 5.3. Publication bias was no longer assessed due to the limited number of studies in this meta-analysis.

RESULTS
Data was collected from 4 randomized controlled trials. There was a decrease in Total T3 (MD=45.55; 95% CI: 33.65, 57.46) which was 45.55 units lower in the cholestyramine as an adjunct compared to standard treatment alone. After addressing heterogeneity, mean difference further increased to 74.89. There was also a decrease in FT4 levels (MD=0.65; 95% CI: -1.39, 0.08) which is 0.65 units lower for those treated with cholestyramine as an adjunct compared to standard treatment alone.