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Madrid, SpainJ Clin Mol Endocrinol 2018, Volume 3
DOI: 10.21767/2572-5432-C2-006**POST-OPERATIVE HYPOCALCEMIA FOLLOWING OPEN THYROIDECTOMY FOR BENIGN MULTINODULAR GOITERS USING FOCUS HARMONIC SCALPEL VERSUS CONVENTIONAL SUTURE LIGATION TECHNIQUE FOR HEMOSTASIS: A PROSPECTIVE, SINGLE-BLIND, RANDOMIZED CONTROLLED TRIAL****Ms. Sadaf Zehra**

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Background: Vessel hemostasis during thyroidectomy is the mainstay of reducing the risk of post-operative hypocalcaemia, which can be achieved by using several techniques. The aim of this study was to assess the occurrence of hypocalcaemia, 24-48 hours following total thyroidectomy by using FOCUS harmonic scalpel (HS) versus the conventional suture ligation (CSL).

Patients & methods: A prospective, single-blind, randomized trial in which 76 patients with benign multi nodular goiters scheduled to undergo total thyroidectomy, were randomized into two groups: to receive HS (n=38) or CSL (38). Patients were monitored for hypocalcaemia at 24 and 48 hours post-operatively and the lengths of post-operative hospital stay. Statistical analysis to detect between-group difference was based on student's t-test performed using SPSS.

Results: The incidence post-operative hypocalcaemia was 15.79% and 36.84%, in HS and CSL groups, respectively ($p = 0.033$). Identification of in situ parathyroid glands was significantly associated with hypocalcaemia in the CSL group ($p = 0.019$) but not in the HS group ($p = 0.372$). Length of hospital stay was 2.63 ± 0.85 and 1.37 ± 0.67 days, respectively ($p < 0.001$).

Conclusions: FOCUS HS reduces overall hypocalcaemia risk compared to conventional hemostasis during thyroidectomy for benign thyroid disease. The conventional suture ligation technique should be replaced with FOCUS HS in thyroid surgery practice.

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