

## **AN UNUSUAL PRESENTATION OF HYPOCALCAEMIA WITHIN TEN HOURS FOLLOWING TOTAL THYROIDECTOMY**

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Hypocalcaemia is a common complication following total thyroidectomy. This is a report of a case of hypocalcaemia occurring within 10 hours of total thyroidectomy, which is unusual.

A 39 year old female with no other co morbidities presented with a goitre of 3 months duration. She was clinically euthyroid with no obstructive features. Neck examination revealed a dominant nodule of the left lower pole with benign features. A colloid multinodular goitre with haemorrhage was diagnosed by ultrasound scan and fine needle aspiration cytology. Thyroid stimulating hormone and free T4 levels were normal. A thyroidectomy was performed, the indications being a colloid goitre with rapid enlargement and cosmetic issues.

An uncomplicated surgery was completed in two hours under general anaesthesia. The left inferior parathyroid gland was preserved. The patient developed severe carpopedal spasms and peripheral numbness with a positive Chvostek's sign, 9.5 hours following surgery. ECG did not show changes of hypocalcaemia. She was treated with intravenous (IV) calcium gluconate and 1 alpha cholecalciferol. The serum ionized calcium was 7.41 mg/dl on the post operative day 1 in spite of IV calcium treatment. Symptoms improved gradually and she was started on oral calcium supplements. However, on post operative day 3, she developed carpopedal spasms with numbness of peripheries again. Intravenous calcium treatment was commenced and the patient improved. She was discharged on post operative day 7 on 1 alpha cholecalciferol and calcium supplements. Serum ionized calcium levels were normal on discharge. She did not have hypocalcaemic features at the end of two weeks after discharge.

Transient hypocalcaemia following thyroidectomy classically occurs 48 hours following surgery and presentation within 24 hours is uncommon. Asymptomatic hypocalcaemia or marginally normal calcium levels preoperatively may have caused the early clinical manifestation in this patient. Vitamin D deficiency can cause asymptomatic hypocalcaemia. Therefore, pre operative assessment of serum ionized calcium levels is beneficial in predicting early development of hypocalcaemia. Non steroidal anti inflammatory drugs (NSAID) and proton pump inhibitors (PPI) can be contributors too.

Therefore, it is important to assess preoperative serum calcium levels to identify high risk patients. Calcium supplements should be avoided in asymptomatic hypocalcaemia, in order to stimulate the stunted parathyroid glands. NSAIDs and PPIs should be avoided on post operative day 1 in high risk patients.