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A CASE OF UNUSUAL PRESENTATION OF POST-THYROIDECTOMY AIRWAY COMPROMISE

Anaesthesiology

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ABSTRACT

A 40-year-old woman presented with neck swelling from last 6 years and diagnosed as Multi Nodular Goiter and was scheduled for total thyroidectomy. General Anesthesia with Endotracheal Intubation was performed. Intra operative period was uneventful. Patient was re-intubated after one hour in postoperative period in view of respiratory distress. Flexible fiberoptic bronchoscopy revealed laryngeal edema and complete Right RLN palsy. After receiving supportive care, the patient was weaned off the ventilator after 2 days.

KEYWORDS

Total Thyroidectomy , RLN palsy, Laryngeal edema

INTRODUCTION

The location of Thyroid gland in relation to airway and great vessels makes thyroidectomy a challenge for both Anesthesiologist and Surgeon. Even though post- thyroidectomy complications like RECURRENT LARYNGEAL NERVE palsy, hematoma, laryngeal edema, hypocalcemia is rare, when they occur, lead to post-extubation stridor and respiratory distress and if not intervened at the earliest, can result in Cardio Pulmonary Arrest.

Fig 1: Post Thyroidectomy Laryngeal edema

Case Report*:*

A 40 year old woman presented with neck swelling of duration 6 years. Diagnosed as Multi Nodular Goiter [largest-4x4 cm]. No signs of hypo/hyperthyroidism. No signs of airway compromise.

Indirect Laryngoscopy –

B/l mobile vocal cords. Scheduled for total thyroidectomy. General Endotracheal Intubation was performed. Surgery lasted for 4 hours. NM blockade was reversed and extubated after positive tracheal leak test and TRAIN OF FOUR>0.9.Shifted from POST ANEASTHESIA CARE UNIT as MODIFIED ALDRETE SCORE>9.But patient was dysphonic.

After 1 hour, patient developed respiratory distress. SpO2-80%,Stridor noted. Intubated with 6.5 mm ET Tube after giving Succinyl Choline-75 mg. kept on Inj.Dexamethasone, Nebulisations [Budecort, Adrenaline].No Hematoma and Blood Calcium, Magnesium levels- normal.

On POD-1,patient Shifted to OT and Flexible Fibreoptic Bronchoscopy was done. Laryngeal edema-noted. Right vocal cord-immobile, in paramedian position suggesting Right RLN palsy. Left cord-normal. On POD-II, extubated SpO2-95%. From POD-IV, phonation improved but hoarseness present. Repeat Fiberoptic Bronchoscopy after 4 weeks Shows partial mobility of right vocal cord.

DISCUSSION:

Post extubation airway compromise can result from wound hematoma, vocal cord dysfunction due to RLN injury or tracheomalacia. Incidence of RLN injuries is 0.77% for unilateral and 0.39% for bilateral injuries. Retraction of Thyroid lobe will result in traction injury which can result in neuropraxia. Longer duration of surgery, undue pulling of trachea, ET tube insitu, with head extension-contribute to laryngeal edema. This airway compromise may require repeat surgery, tracheostomy and temporary re-intubation with steroid therapy. This can be prevented by doing laryngoscopy following deep extubation.

CONCLUSION:

Even though U/L RECURRENT LARYNGEAL NERVE palsy is not dangerous, it can led to airway compromise when paired with other issues such as laryngeal edema. During thyroid surgery the use of an Electromyography Endotracheal Tube will aid the surgeon in avoiding nerve injuries. Therefore, prompt postoperative care and intervention should be necessary in every thyroid surgeries.

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