

ABSTRACT

Background and Objectives

Thyroid surgery is known to its complications post operatively. In recent times these complications are reduced due to expertise in techniques and technologies. Injury to the external branch of the superior laryngeal nerve during thyroidectomy is common. Most of the surgeons do not have enough confidence to dissect and expose the nerve.

The aim of this study is to analyse the frequency and types of External branch of superior laryngeal nerve coursing through the space of Reeve in relationship to the upper pole of the thyroid and related structures.

Methods

From November 2013 to September 2014 our study has been conducted which includes 30 successive patients undergoing (Hemi/Total) Thyroidectomy procedures and meeting the inclusion criteria in our surgical ward at GRH Madurai.

Results : A total of 30 thyroidectomies were done during the study period of which 18 were total thyroidectomy and the remaining 10 were hemi thyroidectomy (8 left hemi thyroidectomy and 4 right hemi thyroidectomy). The frequency of the ELN documented crossing the reeve's avascular space were: **TYPE 1** nerve were 12 (24%) **TYPE 2A** nerve 28 (56%) and **TYPE 2B** 5 (10%). 5(10%) ELN were not seen despite an extensive search.

Conclusion : The preservation of the external branch of laryngeal nerve has various technical difficulties should be considered. Exposure and preservation of the nerve would be aided by the recognition of the potential avascular space of Reeve. In order to reduce the morbidity related to the thyroid surgery, every attempt should be made to ensure safe dissection. There is a considerable variation in the anatomical course of the nerve and its relation to various structures and are influenced by various factors. However every attempt should be made to identify the nerve through meticulous dissection by the surgeons in order to avoid the nerve injury.

Key words: Cricothyroid space, External laryngeal nerve, Thyroid surgery.