

Inferior Thyroid Artery and Its Relation with Recurrent Laryngeal Nerve

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Knowledge of variation in relation between inferior thyroid artery (ITA) and recurrent laryngeal nerve (RLN) is essential in surgery of thyroid gland to prevent damaging the RLN. Our study aimed to determine variations in relationship between ITA and RLN in fresh post-mortems conducted at Judicial Medical Office, Colombo South Teaching Hospital. Sixty fresh thyroid samples (43 Male & 17 Female) without thyroid diseases were collected and 49 (Left) & 47 (Right) sides were studied. RLN passing posterior to ITA or its branches was classified as Type A, RLN passing anterior to ITA or its branches as Type B, RLN passing between the branches of ITA as Type C. Type A- 62.5% (60/96), Type B- 15.6% (15/96) and Type C- 21.8% (21/96) were found. In another three sides ITA related with extralaryngeal branches of RLN. In first ITA passing between extralaryngeal branches. In second ITA passing posterior to extralaryngeal branches and in third RLN divided near lower 1/3rd of thyroid and ITA passing between them. We also noticed double relation in two sides as RLN related with ITA near lower 1/3rd and again related with its terminal branches about middle 1/3rd of thyroid. Even though 28 types of variations are documented, 95% (96/101) of studied samples were of these three major types. Our study revealed that relationship between ITA and RLN was not similar on both sides. Left side Type A and right side Type C was found to be most common in both sexes. Type B was more common in females. Careful study of terminal branches of ITA in relation to RLN is required for safe thyroid surgery.

Keywords: Inferior thyroid artery, Recurrent laryngeal nerve, Thyroidectomy, Terminal branches, Extra laryngeal branches