

An Anatomical Study on Pyramidal Lobe and Levator Glandulae Thyroideae of the Thyroid Gland in Sri Lankan Cadavers

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The pyramidal lobe (PL) is a developmental variant of thyroid gland, representing a persistent remnant of the thyroglossal duct which is found in 10-30% of the population. During total thyroidectomy, careful examination of the PL is crucial to prevent residual thyroid tissue causing persistent hyperthyroidism and acting as a potential site for thyroid carcinoma. Levator glandulae thyroideae (LGT) is a fibromuscular band or muscle present on the neck, typically connecting the pyramidal lobe to hyoid bone, and is another remnant of thyroglossal duct. In this study, the frequency, location, mode of attachment, and dimensions of the PL in the Sri Lankan cadavers were studied. Ten cadavers from the routine dissection classes were considered in the study, which included six males and four females within the age range of 70-90 years. During careful dissection of the thyroid region, PLs were observed and their length and the widths were measured using a digital vernier calliper. Three PLs were found as two (20%) in males and one in a female (10%) cadaver. All PL were originating from the isthmus at the midline. One (10%) of these male cadavers was associated with the thyroid ima artery. The other male and the female cadavers were having LGT (20%), one being fibrous and the other muscular. Both were connected to the pyramidal lobe inferiorly and were attached to the hyoid bone superiorly. The lengths of the PL were 13.5 mm and 22.95 mm, 4.94mm and the widths were 10.40mm and 5.60mm, 4.36mm respectively. One LGT muscle was associated with an accessory thyroid gland. As the presence of a PL is not rare, detailed knowledge is essential for healthcare professionals further, emphasizing the requirement for preoperative imaging. Furthermore, as the sample size is smaller, further studies are needed regarding the variations of thyroid lobes and vasculature.

Keywords: Pyramidal Lobe, Thyroid Gland, Thyroidectomy, Levator Glandulae Thyroideae