An anatomical study on pyramidal lobe of the thyroid gland in Sri Lankan population; Occurrence and clinical significance

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ABSTRACT

Introduction
Total thyroidectomy is a common surgical procedure performed all over the world. Presence of a pyramidal lobe has an added functional and clinical significance. Even after performing a total thyroidectomy for Graves disease, an undetected pyramidal lobe or presence of residual thyroid tissue may be a cause of persistent hyperthyroidism or it also may be a site of a thyroid carcinoma. Therefore when performing a total thyroidectomy, a special attention should be paid to the pyramidal lobe to avoid leaving any residual thyroid tissues.

Objectives
To determine the incidence, position, attachment and length of the pyramidal lobe in Sri Lankan population

Methodology
At the department of Anatomy, Faculty of Medicine, Ragama, 3 formalin fixed cadavers with the age range of 45-75 selected randomly, were dissected to study the pyramidal lobes of the thyroid glands. Pyramidal lobes were identified extending upwards from the non-enlarged thyroid glands. The length and the breadth were measured using a flexible tape.

Results
Eighteen male and twelve female cadavers were dissected and pyramidal lobes were found in 26.7% cadavers. Of the cadavers in whom the pyramidal lobes were present 27.8% were males and 25% were females. Pyramidal lobes were on the right side in 37.5% cadavers and on the left side in 62.5% cadavers. The length and the breadth of the pyramidal lobes varied from 1 to 38mm and 4 to 14mm respectively. In 62.5% cadavers, pyramidal lobes were associated with Levator grandulae thyroideae.

Conclusion
Presence of a pyramidal lobe in the thyroid gland is not a rare occurrence. Therefore when performing thyroid operations, it is crucial to observe the anterior cervical region carefully to detect the presence of a pyramidal lobe. Since our sample size is small we intend to carry out further studies on this area.