259. INDIVIDUAL SPECIFIC FEATURES OF THE THYROID GLAND IN MORPHOLOGICAL ASPECT

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Introduction. The thyroid is an unpaired endocrine gland, consisting of two lobes connected by isthmus and it is located in the middle side of the anterior region of the neck. Its projection corresponds to the C5-C7 and T1 vertebrae. Being covered only by skin, a thin layer of fatty tissue and skeletal muscle of the neck, the gland, can be explored by palpation, and in case of hypertrophy, it protrudes into the anterior region of the neck. The thyroid gland has many morphological and functional features, and one commonly encountered is the presence of the pyramidal lobe. The pyramidal lobe of the thyroid gland is commonly visible as an incidental finding on ultrasound examination. The incidence of pyramidal lobe has been well described on scintigraphy, cadaveric and surgical series with a broad range of findings reported. Whilst a pyramidal lobe may be an entirely incidental finding, it can be affected by the same range of pathologies as the remainder of the thyroid, and hence it is important to recognize its normal variant. This has potential relevance in the pre-operative setting where knowledge of an existing pyramidal lobe may help to ensure complete resection at surgery. In addition, the pyramidal lobe may be a site of recurrent disease in individuals who have had previous thyroidectomy.
Aim of the study. Studying the morphological peculiarities of the thyroid gland and their impact from a clinico-pathological point of view.
Materials and methods. This study is based on a review of articles from open access databases: PubMed; NCBI; Research Gate; Academia.edu
Results. The morphology of the thyroid gland was classified into five groups by the authors for the purposes of this study. The groups were named P0–P4 with classification criteria as follows: P0 – No pyramidal lobe; P1 – Pyramidal lobe, wide base, narrow apex; P2 – Pyramidal lobe, base size same as top size (parallel strip of tissue); P3 – Pyramidal lobe, thin base with a bulbous upper portion; P4 – Pyramidal lobe completely separated from the thyroid (i.e. ectopic thyroid tissue above thyroid gland in pre-laryngeal location). Out of total number of 416 patients included in the study, 233 were females and 183 males. Pyramidal lobes were present in 90 patients (one patient was found to have two pyramidal lobes), yielding an overall incidence of 21%. The frequency of the subtypes was as follows: P1 – 28%, P2 – 32%, P3 – 12% and P4 – 20%. The patients' ages ranged from 17 to 89 (with an average of 48 years). Forty-one (46%) pyramidal lobes were found to arise from the isthmus to the left of the midline and 46 (51%) from the isthmus to the right of the midline; 2 (2%) arose on the midline. Size was recorded in longitudinal, transverse and AP dimensions. The longitudinal measurements ranged from 9 mm to 39 mm (mean 19 mm), the transverse measurement from 4 mm to 27 mm (mean 9 mm) and the AP from 1 mm to 12 mm (mean 3 mm).
Conclusions. The morphological features of the thyroid gland are of increased interest in terms of appropriate treatment and subsequent prognosis. It is important to remember that incomplete resection of the pyramidal lobe may result in post-operative hyperplasia of the gland itself, or recurrence of the primary pathology.
Key words: thyroid gland, pyramidal lobe