Unusual localization of parathyroid gland inferior to the thyroid gland, absence of the isthmus of thyroid gland and intra thyroid thymic tissue - A case report

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Case report: Ectopic parathyroid glands are not rare and can be seen anywhere between mandibular angle and mediastinum. Absent of isthmus of thyroid was noted in a 36 year Sri Lankan male at postmortem. Lobes of thyroid were connected only by pretracheal fascia. The length of right lobe was 4.7cm and left was 4.8cm. Superior parathyroid glands (SPGs) were normal in position, left near cricothyroid junction and right just above first tracheal ring. The right inferior parathyroid gland (IPG) (8mm), tan yellow in color was observed just below lower pole of thyroid on anterior surface and extracapsular in position. Left IPG(1cm), brownish red color glandular tissue was situated at lower pole posterolateral and intracapsular in position. Histology revealed normal right IPG tissue and on left side thymic tissue with Hassall's corpuscle present within thyroid capsule. Presence of ectopic thymic tissue within thyroid has been documented in children younger than 10 years. Agenesis of isthmus of thyroid may be due to a high division of thyroglossal duct. Thymus develops primarily from ventral and IPG from dorsal wing of third branchial pouch.

Discussion: Occasionally thymus and parathyroids can be present in ectopic sites. Ectopic thymic tissue can be present in thyroid and be asymptomatic. Anatomical and clinical significance of absence of thyroid isthmus and ectopic sites of parathyroids is important for surgeons operating on the thyroid gland. Present case report is an attempt to highlight such.