Ectopic papillary thyroid carcinoma arising in the background of thyroglossal duct cyst: A case report and discussion on management

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SUMMARY

Carcinoma arising in ectopic thyroid tissue is a rare phenomenon. Ectopic thyroid tissue is most commonly presented in the thyroglossal, lingual and laryngotracheal sites. Only 1% of thyroglossal duct cyst can harbour malignancy, and the majority type identified being papillary carcinoma. Until today, the optimal management of thyroglossal duct cyst carcinoma is still debated. Due to its rarity and unusual manifestation, we present a case of ectopic papillary thyroid carcinoma (PTC) arising in the background of thyroglossal duct cyst with normal thyroid gland tissue. A 43-year-old Malay lady presented with a painless and progressively growing submental mass for 10 months duration. On examination, there was a 3x2cm firm, non-tender mass over submental region. Thyroid function tests results were within normal range. Fine needle aspiration cytology (FNAC) of submental mass showed malignant epithelial cells, with presence of thyroglobulin foci and cystic degeneration. Computed tomography revealed an ill-defined lobulated hypodense lesion seen at the sublingual region measuring approximately 2.9x3.7x3.4 cm with areas of central enhancement associated with calcification. The lesion is just anterior to the hyoid, there was no bony erosion of hyoid bone and the thyroid gland was normal. An enhancing submental and bilateral multiple subcentimeter lymph nodes were noted. The patient underwent excision of tumour with bilateral anterolateral neck dissection. Intraoperatively, the tumour was adhered to the body of hyoid bone, involving mylohyoid muscle and geniohyoid muscle. Tumour was excised along with the body of hyoid bone. The postoperative histopathological report suggestive of a PTC arising in a background of thyroglossal duct cyst in view of focal presence of normal thyroid follicles in the walls of the neoplastic cyst. The hyoid bone is negative for tumor cells infiltration. Bilateral cervical lymph nodes from level I to IV were negative for metastases. After the surgery, the patient was well and scheduled for regular surveillance and follow up. Total thyroidectomy and post-operative radioactive iodine ablation therapy was not done in view of normal thyroid gland on FNAC and ultrasound study. The present case highlighted the possibility of ectopic PTC arising from thyroglossal duct cyst and must always be considered in cases presented with pathological midline mass over the neck. Sistrunk procedure alone is sufficient for those in low risk conditions as shown in this case with uninvolved thyroid gland, size <4cm, age <45 years, no soft tissue invasion, no aggressive malignancy histology, no prior radiation exposure, and no distant metastases. A systematic review has shown that overall prognosis is excellent, with a survival rate of 99.4% and a recurrence rate of 4.3%. Therefore treatment strategies should be based on individualized risk stratification assessment.

Craniofacial fibrous dysplasia: An approach to managing a newly diagnosed benign lesion and a recurrent malignant lesion

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SUMMARY

Fibrous dysplasia is a benign condition where normal bone and marrow are substituted by fibrous tissue and woven bone. Fibrous dysplasia is typically a slow and indolent growth, while a malignant change to sarcoma shows a rapid enlargement and invasion of adjacent vital structures causing functional deficits. Malignant change from underlying fibrous dysplasia to osteosarcoma has been reported in less than 1% of cases. Determining the appropriate treatment in a newly diagnosed fibrous dysplasia and a recurrent malignant osteosarcoma. We report 2 cases of a different scenario. The first case involves a 16-year-old male presented with painless left maxillary swelling for four years, increasing in size and associated with left upper gum swelling. On examination, there was left maxillary fullness of about 2x2cm, bony hard and non-tender. Intraorally noted fullness over the left upper gingiva near 22-23 region. Histopathology report revealed as a benign fibro-osseous lesion. A computed tomography imaging suggestive of left maxillary fibrous dysplasia. After a thorough multidisciplinary team discussion, the decision is for surveillance and monitoring until skeletal maturity is reached. The second case involves a 55-year-old gentleman with recurrent left maxillary osteosarcoma with underlying fibrous dysplasia, who has previously undergone a left total maxillectomy and tumor excision in early 2014 and completed chemoradiation in 2019. The patient presented again with epistaxis for two months associated with left eye protrusion, diplopia, and left-sided headache. On examination, a fungating mass protruding out of the left nostril and intraoral. Radiological imaging shows enlarging tumour in the greater wing of the left sphenoid bone and sphenoid sinus with intraorbital and intracranial involvement. After a multidisciplinary team discussion and considering the risk involved, the patient decided for chemotherapy. The diagnosis and management of craniofacial fibrous dysplasia are partly based on the patient's age and skeletal maturity stage. A conservative approach is mostly encouraged, and surgery to be considered only once skeletal maturity is obtained unless there is malignant transformation or functional deficits.