ABSTRACT

Educational Objective: At the conclusion of this presentation, the participants should be able to consider the brown tumor of the nasal bone as a differential diagnosis of nasal bone tumors, also to consider hyperparathyroidism after the excision of a brown tumor from the nose.

Objectives: The brown tumor is a bone lesion that arises in settings of excess osteoclast activity, such as hyperparathyroidism. It is not a true neoplasm, it represents a reparative cellular process rather than a neoplastic process and could be a difficult differential diagnosis to anticipate. In this presentation, we report a case of brown tumor of the nasal bone and reviewed the literature.

Study Design: A case report and literature review.

Methods: We report a 19-year-old woman presented with a 12-month history of bilateral nasal obstruction mainly on the left side. There is no present or past medical history. The patient had no family history of any nasal diseases. On nasal endoscopic examination, a bilateral posterior nasal cavity mass originating from the vomer and expanding on both sides, the possibility of a tumor of the nasal cavity was considered, for further evaluation of the mass, high-resolution CT of the nasal bone was performed. The CT study showed a mass causing the obstruction (Fig. 1). The differential diagnosis included granulomas or benign nasal tumor. Wide excision of the mass was performed.

Surgical techniques: Transnasal endoscopic excision starting with raising the mucoperiosteal flap, raising the nose over the mass and continued posteriorly of the mass and was raising also the nasal floor (Fig. 2). En bloc resection of this mass was difficult because the mass was friable so piecemeal resection was done. The flap was repositioned back (Fig. 3).

RESULTS

The mass appeared yellowish brown in color (Fig. 4). The cut surface of the excised mass was mostly yellowish tan. Histopathological examination of the specimen revealed multiple fragments of tissue showing proliferating spindle-shaped cells admixed with reactive multinucleated giant cells & Reactive bone formation with few blood spaces, this fibro-osseous lesion was consistent with brown tumor of bone. Laboratory evaluation of the patient revealed hyperparathyroidism. The patient remained asymptomatic and recurrence-free at the 1-year follow-up.

DISCUSSION/CONCLUSIONS

Brown tumor is an uncommon focal giant-cell lesion, arises as a direct result of the effect of parathyroid hormone on bone tissue in patients with hyperparathyroidism from a reparative cellular process through rapid osteoclastic turnover of bone rather than a neoplastic process. The initial treatment involves the correction of hyperparathyroidism, which usually leads to tumor regression. If the mass is resectable, we should remove it at all completely, also to consider the brown tumor as a differential diagnosis of nasal cavity masses and the nasal lesions with histologic features of a giant-cell tumor should be evaluated for hyperparathyroidism.

REFERENCES


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