

FINAL DIAGNOSIS:

A diagnosis of pituitary adenoma extending into the nasal cavity was rendered.

DISCUSSION:

Pituitary tumors are common in sellar area with autopsy series reporting incidence of up to 11% in general population. The prevalence of clinically apparent pituitary lesions is estimated to comprise approximately 10% of all intracranial lesions. Pituitary tumors are mostly found to be benign adenomas, however pituitary carcinoma has been reported to comprise about 0.5% of pituitary tumors. The etiology is a multistep, multicausal process including initiation and progression phases. Pituitary adenomas are associated with an immense diversity in their endocrine manifestations secondary to hypo or hyperfunction of pituitary gland and ophthalmological manifestations due to mass effect. Invasive, aggressive adenomas often recur over several years and may evolve into pituitary carcinoma. Progress in the diagnostic examination of pituitary adenomas and advances in the treatment of these tumors offers excellent prospects for a successful therapeutic outcome.

The 4th edition of the WHO Classification of Tumors of Endocrine Organs, published in 2017, saw the introduction of a classification based on cell lineage using immunohistochemistry for both pituitary specific hormones as well as pituitary specific transcription factors. The term "hormone-producing" was thus replaced by "-troph." The other major change was that the entity of "atypical adenoma," which was introduced in the 2004 classification, to identify tumors with a poor prognosis, was removed as it failed to identify aggressive tumors. Instead, assessment of markers of proliferation, clinical parameters such as invasive status and histological subtypes were recommended to identify tumors with aggressive potential. The diagnostic criteria for pituitary carcinoma, however, remain unchanged being defined as a tumor of adenohypophyseal cells that metastasize craniospinally or systemically. Since 2017, the classification has continued to evolve with the identification of aggressive histological variants. There is more recently a proposal to change the terminology from pituitary adenoma to pituitary neuroendocrine tumor (PitNET).

Pituitary adenoma rarely presents as a nasal mass. The importance of clinical and radiologic details is highlighted to reach a confirmative diagnosis in the index case. The lesion which was presumed to be a benign nasal polyp, on radiologic and histopathologic evaluation turned out to be a pituitary adenoma.