

RHINOLITHIASIS- AN UNSUAL CAUSE FOR A COMMON SYMPTOM

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INTRODUCTION

A rhinolith is a calcified mass formed within the nasal cavity due to solidifications of mucus, debris or foreign bodies by gradual accretion of mineral salts. They are uncommon and rarely encountered in clinical practice. A case report of a female patient presenting with a longstanding rhinolith in her right nasal cavity is described and a review of the literature is provided.

CASE REPORT

A 44-year-old female was referred by her general dental practitioner with an incidental radio-opaque lesion in the right nasal cavity on routine computed tomography (CT) imaging before dental implant placement (Fig 1). She reported chronic unilateral nasal obstruction and intermittent blood stained rhinorrhea. She was not aware of any nasal foreign body. She denied history of nasal trauma, hyposmia, nasal pain or sensitivity, otalgia, vision problems or fevers. The patient had no surgical history. She was a nonsmoker and nondrinker and denied illicit drug use. She was not actively taking any medications.

PHISICAL EXAMINATION

Anterior rhinoscopy demonstrated a black mass on the floor of the right nasal cavity with gritting sensation on probing and a substantial deviation of the nasal septum (NS) to the right. The foreign body was situated within the nasal septum and the inferior turbinate (IT) with complete obstruction of the nasal passage. The remainder of the head and neck examination was unremarkable.

MANAGEMENT AND FOLLOW-UP

Due to significant deviation of the NS, removal was impossible on the consultation under local anesthesia. The patient underwent surgical removal of the rhinolith by endonasal approach along with septoplasty to correct the deviated NS under general anesthesia (Fig 2). Intraoperatively erosion of the right IT which was in close contact with the rhinolith was found. Reevaluation was scheduled on postoperative day 7. Healing was uneventful. (Fig 3-4)

RADIOLOGICAL FINDINGS

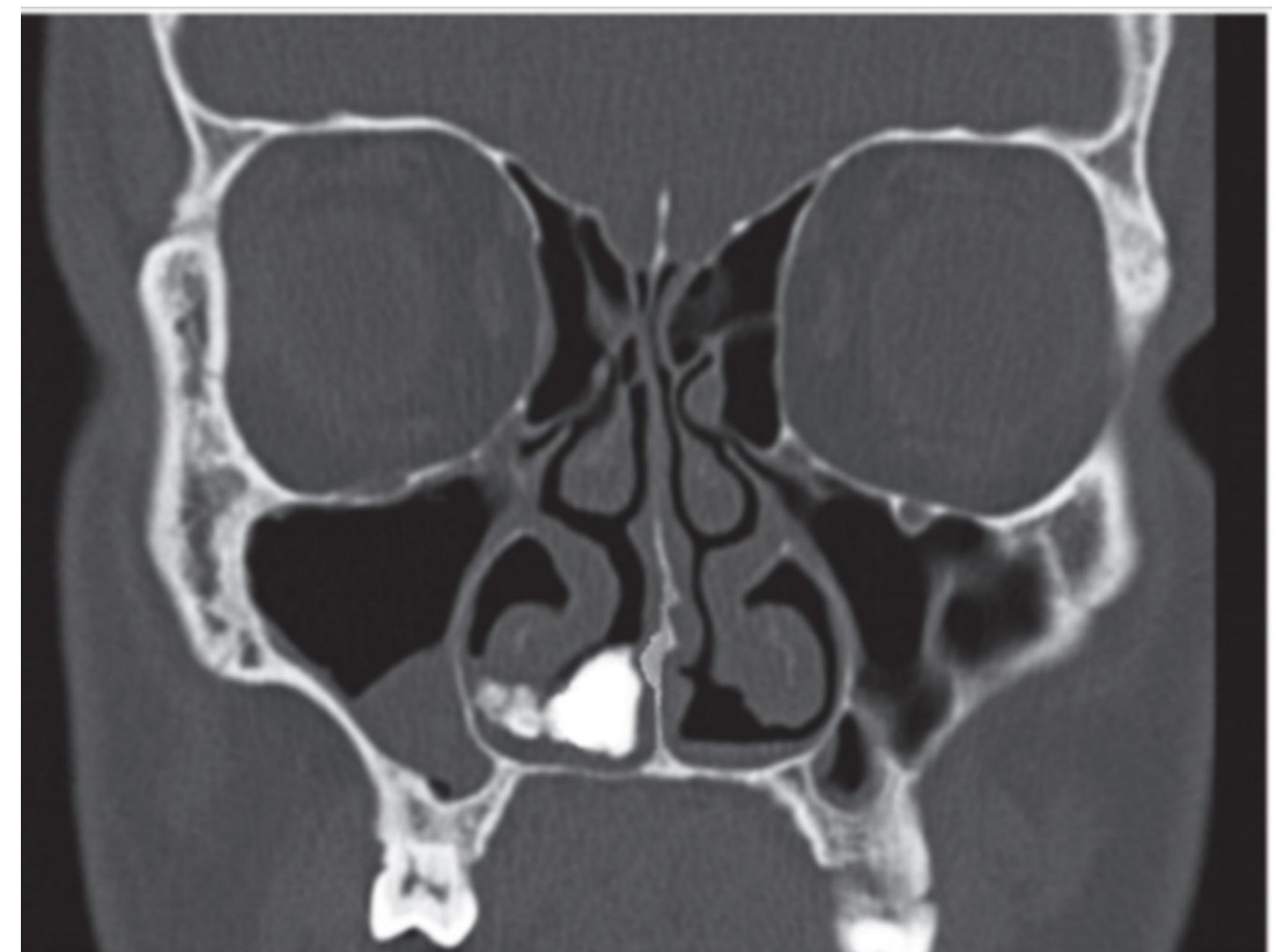


Fig. 1- CT scan confirmed a densely calcified mass within the right nasal cavity with mucosal thickening, closely related to the IT.

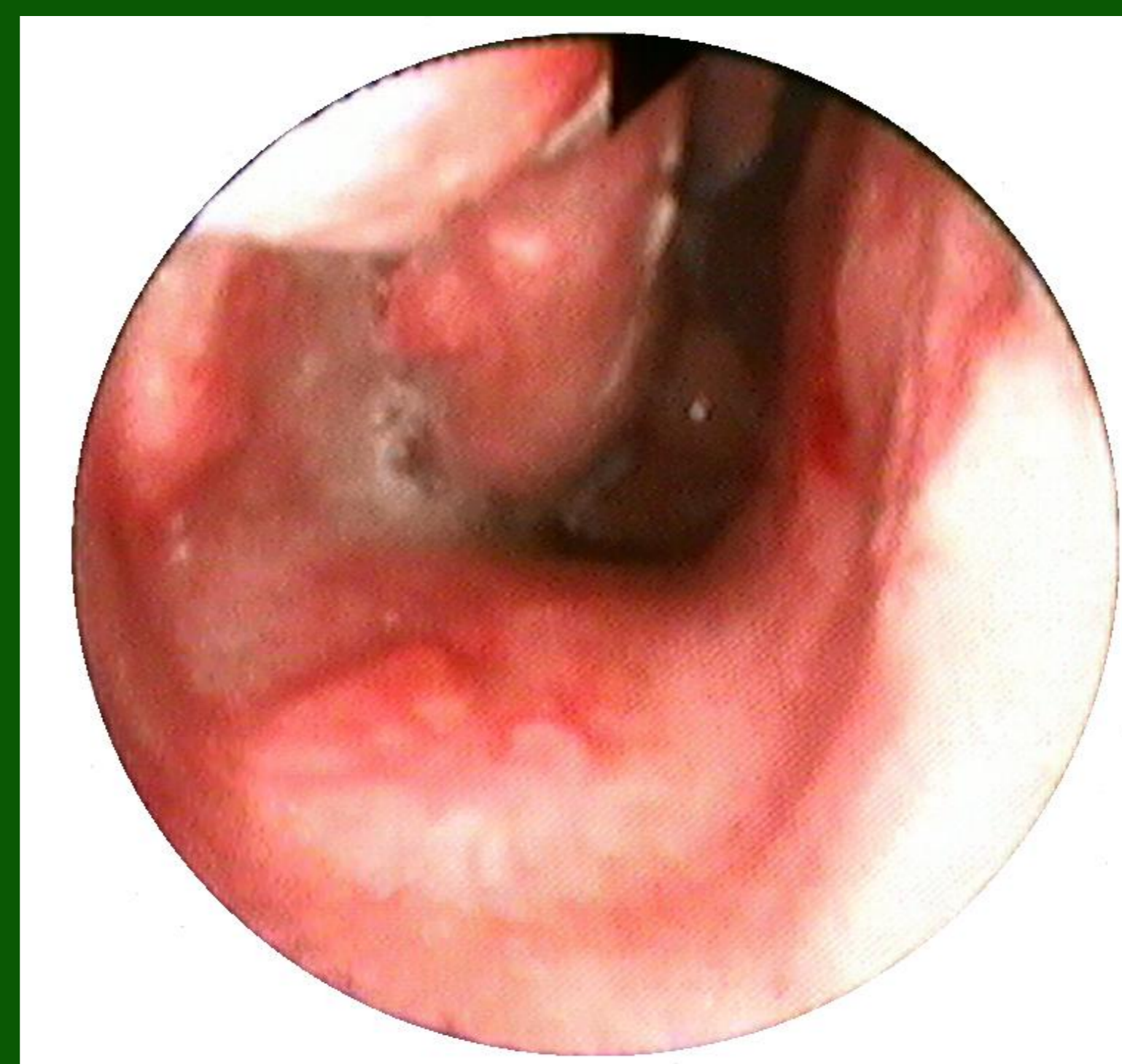
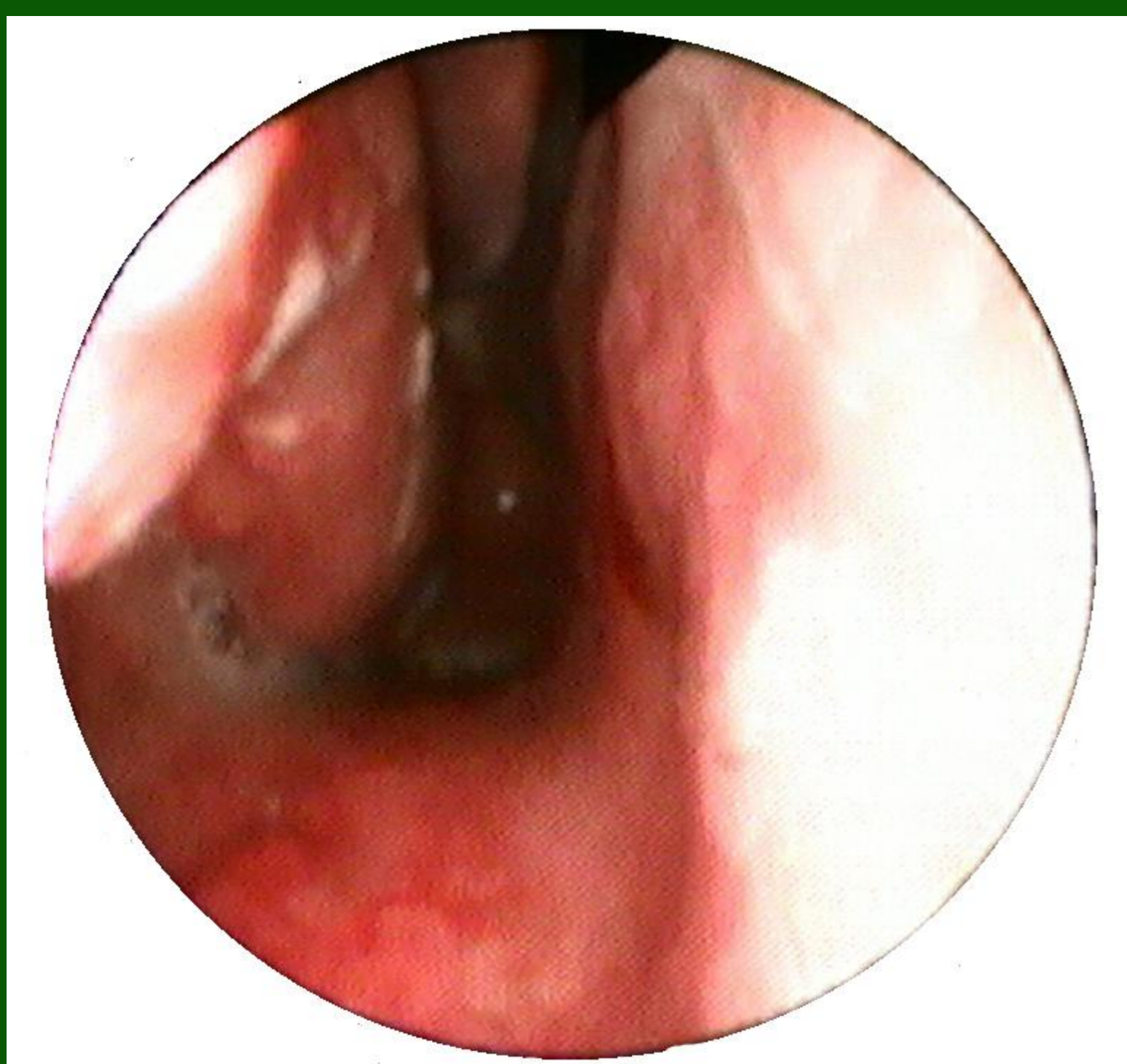


Fig. 2- Removed Rinolith. The largest fragment removed measured 3,0x1,6cm

MACROSCOPY of the mass revealed a blackish, rough foreign body.

MICROSCOPIC ANALYSIS revealed an amorphous inorganic precipitate.

Fig 3-4. Nasal endoscopy on postoperative day 7. Erosion of the right IT can be seen.

DISCUSSION

Rhinoliths are calcareous concretions that are formed by the gradual deposition of salts on an intranasal foreign body. Nasal foreign bodies can either be exogenous (grains, seeds, insects, stone fragments, etc...) or endogenous (blood clots, tooth fragments, dry secretions, mucosal necrosis). Rinoliths may remain asymptomatic and undetected for many years. On presentation, typical symptoms are progressive unilateral nasal obstruction, rhinorrhea (usually purulent and fetid) and epistaxis. Facial pain, headache and epiphora may also be present. Radiological assessment is rarely needed. The treatment of choice is surgical removal under local or general anesthesia.

CONCLUSION

A high index of suspicion is required for the diagnosis of such a forgotten entity. It must always be considered in patients with long standing nasal obstruction, nasal / oral malodor, purulent rhinorrhea and chronic headache. Surgical removal is the treatment of choice.

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