Abstract: INTRODUCTION - Inverted papilloma or Schneiderian papilloma is a benign tumor of the sinonasal tract that usually arises from the lateral wall of the nose at the fontanelle area. It usually occurs in the fifth and sixth decades of life. Men are more commonly affected.

CASE REPORT - We are presenting here a case report of inverted papilloma in a 53 year old male presenting with unilateral nasal obstruction of the left side for 8 months. Diagnostic nasal endoscopy revealed a reddish friable polypoidal mass occupying the left nasal cavity extending up to the inferior turbinate. Biopsy report came as inverted papilloma. Patient underwent endoscopic excision and is on follow up.

CONCLUSION - Inverted papilloma is one of the benign tumor of the sinonasal tract which has a significant chance of developing into malignant tumor. Hence patient should be on regular follow up.

Keyword: Inverted Papilloma, Endoscopic Excision

INTRODUCTION:
Inverted papilloma or Schneiderian papilloma is a benign tumor of the sinonasal tract that usually arises from the lateral wall of the nose at the fontanelle area. The incidence ranges from 0.4% to 4.7% of all nasal tumors. Men are more commonly involved than women. The lesion is prevalently observed in the fifth and sixth decades of life. Unilateral nasal obstruction with watery rhinorrhea is the most common symptom prompting the patient to seek otolaryngologic consultation, whereas epiphora, proptosis, diplopia, and headache may be associated with advanced lesions involving the orbit or the skull base.

CASE REPORT:
A 53 years male presented to our OPD with complaints of left sided nasal obstruction for 8 months duration, insidious in onset, gradual and progressive in nature. Complaints of watery nasal discharge from the left nasal cavity for 8 months. History of epiphora from the left eye. History of decreased sense of smell on the left side. History of hyponasal voice. The patient is a known case of hypothyroidism on tab eltroxine 250 mcq once daily dosing. The physical examination revealed a reddish polypoidal mass occupying the left nasal cavity extending up to the inferior turbinate which bleeds on touch. Left eye proptosis was present. The globe was pushed upwards and outwards. Extra ocular movements were normal. Diagnostic nasal endoscopy done and biopsy taken from the mass. HPE report came as inverted papilloma. CT scan of the Paranasal sinus revealed a soft tissue density in the left nasal cavity involving the left frontal, ethmoidal, maxillary and sphenoid sinuses.

Fig 1: clinical picture of the patient showing left eye proptosis.

Fig 2: CT PNS of the patient
DISCUSSION:
Inverted papilloma (or Schneiderian papilloma, inverted type), which is included in the group of sinonasal papillomas together with the oncocytic and exophytic variants, is the second most common benign tumor of the sinonasal tract after osteoma, even though it represents the most common surgical indication for a benign sinonasal tumor. The lesion is estimated to represent 0.4% to 4.7% of all surgically removed nasal tumors, with an incidence ranging from 0.6 to 1.5 cases per 100,000 inhabitants per year [1,2]. Men are more commonly affected than women, and the lesion is prevalently observed in the fifth and sixth decades of life. Inverted papilloma most frequently arises from the lateral nasal wall in the fontanelle area. The maxillary sinus is the second most commonly affected site, and frontal and sphenoid sinuses are rarely involved primarily. Often the lesion extensively involves more than one sinus, making it impossible to assess the exact site of origin. Inverted papilloma is suspected to have a viral etiology. Human papillomavirus DNA has been demonstrated by in situ hybridization or the polymerase chain reaction in papillomas, with a prevalence of serotypes 6, 11, 16, and 18[3,4].

The last two serotypes have been specifically found to be associated with inverted papillomas that show histologic signs of malignant transformation. Not unexpectedly, in this setting an increase in levels of epidermal growth factor receptor and tumor growth factor-1 has been demonstrated [5]. Unilateral nasal obstruction with watery rhinorrhea is the most common symptom prompting the patient to seek otolaryngologic consultation, whereas epiphora, proptosis, diplopia, and headache may be associated with advanced lesions involving the orbit or the skull base. Endoscopy of the nose, usually showing a pale, polypoid lesion with a papillary appearance protruding from the middle meatus, may easily suggest the diagnosis, which is sometimes made less obvious by the concomitant presence of inflammatory polyps. A biopsy performed under endoscopic guidance is indicated to establish the histologic diagnosis. With regard to the histologic appearance, inverted papilloma is composed exclusively of hyperplastic ribbons of basement membrane–enclosed epithelium that grow endophytically into the underlying stroma. The epithelium is multilayered and formed of squamous or ciliated columnar cells mixed with mucocytes[6]. The association of inverted papilloma with squamous cell carcinoma has been overemphasized, with reported frequencies as high as 56%. Recent data clearly show that the prevalence varies between 3.4% [7] and 9.7% [8] and that synchronous occurrence is more common than metachronous. Imaging studies are required to assess the extent and three-dimensional configuration of the lesion and to disclose its relationship with surrounding structures (i.e., orbit, skull base, optic nerve, internal carotid artery). As clearly shown by a 2006 meta-analysis [9], endoscopic surgery is a reliable alternative to traditional external techniques for the vast majority of lesions. The extent of the operation is dictated by the site of the lesion and the area of mucosa involved by the lesion. Apart from cases with a clearly identifiable small attachment of the lesion, which can be managed with a very conservative approach, there are basically three different types of endoscopic resections available, according to our classification.[10] Type I resection is indicated for inverted papillomas involving the middle meatus, ethmoid, superior meatus, sphenoid sinus, or a
combination of these structures; even lesions protruding into the maxillary sinus without direct involvement of the mucosa are amenable to this approach. Type II resection, which corresponds to an endoscopic medial maxillectomy, is indicated for tumors originating within the nasoethmoidal complex and secondarily extending into the maxillary sinus or for primary maxillary lesions not involving the anterior and lateral walls of the sinus itself. The nasolacrimal duct can be included in the specimen to increase the exposure of the anterior part of the maxillary sinus. Type III resection, also known as the Sturman-Canfield operation or endonasal Denker operation, entails removal of the medial portion of the anterior wall of the maxillary sinus to enable access to all the antrum walls. It is therefore recommended for inverted papillomas extensively involving the anterior compartment of the maxillary sinus. However, whenever the lesion involves a cell that extends far posteriorly and/or laterally over the orbit and complete resection cannot be achieved transnasally, the surgeon should resort to a frontal osteoplastic flap. Postoperatively, MRI or CT is indicated only when a sinus that was originally involved by the lesion is not accessible for exploration owing to scar closure, the patient is symptomatic, or a residual or recurrent lesion has been histologically documented. In the era when transnasal resection without endoscopic or microscopic assistance was the most commonly used technique, the rate of recurrences ranged from 40% to 78%. These extremely high values indicate that these “recurrences,” mostly occurring at the site of primary resection, should have been more appropriately regarded as residual lesions. They reflected the inadequacy of transnasal surgery in affording a radical excision of the lesion. In view of such limitations, medial maxillectomy through lateral rhinotomy was established in the 1970s and 1980s as the gold standard for treatment of inverted papilloma. Although the frequency of recurrences decreased, reportedly from 0% to 29%, this technique was associated with potential aesthetic sequelae. Therefore, midfacial degloving became the most popular approach for the management of inverted papilloma. Nowadays endoscopic resection of the tumor is widely employed.

CONCLUSION:
Inverted papilloma is a benign tumor of the nasal cavity. Surgical excision is the best treatment option. Various approaches like lateral rhinotomy, midfacial degloving etc may be tried. Nowadays endoscopic surgeries play a major role. The advantages of endoscopic surgical surgeries are, it is minimally invasive, complications rate and morbidity are less compared to open techniques. Patient should be on regular follow up as it has a propensity to turn into malignancy. In our case endoscopic excision of the mass was done. Tumor regression is very good. Patient improved symptomatically. Patient is on regular follow up and no recurrence was found till date.

REFERENCES: