Inverted Papilloma in a 61-year-old Man: A Case Report

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INTRODUCTION
Inverted papilloma is a benign epithelial tumor of the cavum nasi and paranasal sinuses. It originates on the mucosal surface from pseudostratified ciliated columnar epithelium in the sinonasal region, usually in the lateral wall of cavum nasi, middle meatus, often extending to ethmoidal and maxillary sinuses. The tumor is well known for its recurrence and invasiveness associated with malignancy.¹ ²

This tumor is rarely found, which is about 0.5–4% of all tumors of the nose and paranasal sinuses and their incidence rate reaches 0.6 cases/100000 people/year. Men are more commonly affected than women with a 2:1 ratio and the lesion is most often seen in the fifth and sixth decades of life.²³ The signs and symptoms are not specific and may include unilateral nasal obstruction that causes pain, purulent discharge, epistaxis, olfactory disorder, and recurrent rhinosinusitis. The lesion resembles polyps but it is more solid. The etiology of this tumor remains unknown although chronic sinusitis, allergy, and viral infections are suspected. We aimed to present a case report of a 61 years old man with inverted papilloma on the cavum nasi and paranasal sinuses sinistra.

CASE PRESENTATION
A 61-year-old man presented to the Department of Ear, Nose, and Throat (ENT), Bali Royal Hospital on 17 January 2023 with nasal obstruction 5 years ago, and getting worse over 3 months. Due to the obstruction, he felt his sense of smell diminished. He also often sneezed had headaches and felt his left nose was bigger than his right. On examination, a grey-white mass with an irregular, slippery surface, and soft consistency were found. The mass did not bleed easily, was not painful when touched, and filled almost the entire cavum nasi sinistra. CT scan revealed rhinosinusitis of maxillary dextra et sinistra, ethmoidal dextra et sinistra, and frontalis sinistra with polyp shape and concha nasi sinistra protruding posteriorly. Functional Endoscopic Sinus Surgery (FESS) and extirpation under general anesthesia (GA) were planned. An excisional biopsy was sent for histopathological examination. Based on clinicohistopathologic studies, it suggests of final diagnosis of inverted papilloma.

Conclusion: Due to the signs and symptoms of inverted papilloma are not specific, a CT scan and biopsy are needed to confirm the diagnosis. To reduce the recurrence of these tumors, complete tumor removal with an endoscopic approach is recommended. Long-term follow-up is also necessary to prevent the recurrence.

Keywords: Inverted papilloma, sinonasal papilloma, benign epithelial tumor.
and there is no discharge. Cavum nasi dextra within normal limits. CT scan revealed rhinosinusitis of maxillary dextra et sinistra, ethmoidal dextra et sinistra, and frontalis sinistra with polyph shape and concha nasi sinistra protruding posteriorly. The results of laboratory examinations obtained Leukocytes 5.2 x 10⁹/µL; erythrocytes 4.75x10⁹/µL; hemoglobin 14 g/dL; hematocrit 43.4%; MCV 91.4 fl; MCH 29.5 pg; MCHC 32.3 g/dL; platelets 235x10¹²/µL; bleeding time 2'30”; freeze time 9'30”; SARS-Cv-2 antigen was negative.

Functional Endoscopic Sinus Surgery (FESS) and extirpation under general anesthesia (GA) were planned. An excisional biopsy was sent for histopathological examination. Histopathological examination revealed a polypoid-shaped mass of the cavum nasi with the surface covered by respiratory cells and some of which have squamous metaplasia. Some of the surface epithelium appears to grow inverted into the stoma forming solid clusters. The stroma appears edematous with dilated vessels and scattering of lymphoplasmacytic, histiococytes, eosinophils, and neutrophil PMNs. Inflammatory cells appear to infiltrate the surface epithelium. Based on clinicohistopathologic, it suggests of final diagnosis of inverted papilloma.

DISCUSSION

Inverted papilloma or Schneiderian is the second most frequent benign tumor of the sinonasal tract after osteoma with an incidence of 0.5-4%. This tumor is often controversial because it includes benign lesion but clinically make aggressive local destruction. The highest incidence is in the fifth and sixth decades with a predominance of males than females with a ratio of 2:1. The name inverted is derived from the pattern of endophiloc growth of the superficial epithelium inside the adjacent stroma.

The signs and symptoms are not specific and vary based on the site of occurrence. The duration of inverted papilloma varies from several weeks to years. There are no specific symptoms that can differentiate between inverted papilloma with and without malignancy. In this case, the patient complains of a left nasal obstruction 5 years ago, and getting worse over 3 months. He often sneezed and had a headache. The most clinical symptoms of inverted papilloma include unilateral nasal obstruction, this occurs due to the presence of a sufficient mass that filled almost the entire cavum nasi. Blockage of drainage from the sinuses by a mass can cause headaches and sinusitis. If the headache is persistent and nocturnal, a malignant transformation that damages the basis cranii should be suspected.

Physical examination may reveal the presence of a mass. The best means of examination is nasal endoscopy, as most inverted papillomas can be found during a physical examination of the nasal cavity. Endoscopic examination is necessary to assess the local disease extent and to provide biopsy material. On examination, there is a grey-white or pink polyloid mass with varying consistency in the lateral concha. Sometimes clinically difficult to distinguish from nasal polyps. In this case, a grey-white mass with an irregular, slippery surface, and soft consistency grew from the lateral wall of the nasal cavity.

An endoscope-assisted biopsy should be performed to differentiate from other sinonasal tumors and establish a definitive diagnosis. Histopathological examination revealed an invagination of the superficial inverted papilloma epithelium into the underlying connective tissue stroma. The epithelium may be of squamous, transitional, or respiratory type. The basal membrane is intact. Inflammatory features are common in inverted papilloma, and it usually mimics inflammatory polyps. In accordance with the theory, the surface mass covered with respiratory cells and some of them had squamous metaplasia was found in this case. Some of the surface epithelium has invaginations into the stoma forming dense clusters.

A radiological assessment was carried out with a CT scan. This imaging can determine the extent of the tumor and the presence of hyperostosis which can be used to predict the place of origin of the tumor. In addition, sometimes intratumor calcifications are seen on CT scans. The hallmark of inverted papilloma on CT is the unilateral opacification of a contiguous nasal cavity and sinus mass. Lobulated margins are another CT indicator. The inverted papilloma is homogeneous with a soft tissue density and enhances heterogeneously with contrast. As the tumor enlarges, the adjacent bone may become thinned, bowed, eroded, or sclerotic.

Incomplete tumor removal is considered the main causative factor for recurrence, so complete tumor removal is the best treatment for cases of sinonasal inverted papilloma. Previously, medial maxillectomy via lateral rhinotomy approach was considered the most effective procedure. The development of trans-nasal endoscopic surgery has been widely studied, achieving a low recurrence rate and limiting the morbidity of external approaches. A meta-analytic study indicates that the endoscopic approach seems a favourable treatment option for sinonasal inverted papilloma and confirms the global recommendation that is the gold standard in the treatment of such nose lesions, revealing a lower recurrence rate compared to external approaches.

Functional Endoscopic Sinus Surgery (FESS) is a minimally invasive surgical technique which allows direct visual...
There is no potential conflict of interest necessary to prevent the recurrence. Long-term follow-up is also necessary to prevent the recurrence. papilloma. Long-term follow-up is also necessary to prevent the recurrence.

CONCLUSION

Inverted papilloma is a benign neoplasm originating from the sinonasal mucosa. The name inverted is derived from the pattern of endophilic growth of the superficial epithelium inside the adjacent stroma. This tumor usually occurs unilaterally with nonspecific signs and symptoms. The aetiology of this tumor is not fully understood. The diagnosis is made by means of a biopsy. A CT Scan is necessary to determine the extent of the tumor and the presence of hyperostosis which can be used to predict the place of origin of the tumor. Complete tumor removal with an endoscopic approach seems a favourable treatment option for sinonasal inverted papilloma. Long-term follow-up is also necessary to prevent the recurrence.

CONFLICT OF INTEREST

There is no potential conflict of interest relevant to this article reported.

CONSENT FOR PUBLICATION

The patient has undersigned and given his consent for the publication of identifiable details, which can include a photograph and/or videos and/or case history and/or details within the text to be published in the above Journal and Article.

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AUTHOR CONTRIBUTION

All authors took part in this report, review, and manuscript.

REFERENCES