Inverted papilloma of the hard palate masquerading as a carcinoma

Kallianpur AA, Goyal S[1], Yadav R[2], Muduly DK

Department of Surgical Oncology, Dr. BRA-IRCH, Departments of [1]Surgery, and [2]Pathology, All India Institute of Medical Sciences, New Delhi, India

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ABSTRACT

Inverted papilloma (IP) is a rare, benign tumor of the nose and paranasal sinus. However, it is locally aggressive, the recurrence rate is high and malignant transformation is possible. Until now, IP of the hard palate has rarely been reported in the literature. Here, we reported a case with IP of the hard palate, which clinically presented as a carcinomatous growth. The management of IP is complete surgical excision with a close follow-up to detect early recurrence and/or malignant transformation.

Key words: Carcinomatous growth, hard palate, inverted papilloma

Inverted papilloma (IP) is a rare, benign and locally aggressive tumor of the nasal cavity and paranasal sinus.[1] The first case report was described by Ward in 1854.[1] IP is also known as fibromyxoid papilloma, transitional cells papilloma, Ewing papilloma, Schneiderian papilloma or Ringertz's papilloma. The most common site of IP is the lateral nasal wall and other locations include the oral vestibule, nasal septum, nasopharyngyx, sphenoid and frontal sinus and the lacrimal sac.[1]

IP of the hard palate has rarely been reported in the literature.[2-4] We described a case of IP of the hard palate.

CASE REPORT

A 70-year-old female patient presented in our department with a painful mass at the hard palate, which developed over the past few years until she found difficulty in closing her mouth. There was no rhinorrhea, epistaxis, headache or visual impairment. She had no co-morbidity. Rest of her general and systemic examination was normal. Patient had no bad habits such as tobacco or alcohol intake in any form. She also gave no history of human papilloma virus vaccination. On oral examination, the mass extended from the right canine to the left first molar, involving the upper left alveolus [Figure 1]. It was fixed to the palatal bone and there was no bleeding on palpation. The otorhinolaryngological examination revealed normal nasal mucosa, except hypertrophy of the inferior nasal turbinate.

Contrast computerized tomography showed a 7 cm × 5 cm space occupying lesion in the upper alveolus and hard palate with destruction of the maxillary sinus floor. The nasal and sinus mucosa was normal [Figures 2 and 3].

Patient was elected first to undergo an incisional biopsy. The histopathological findings showed proliferative islands of squamous cells with the inverted growth pattern and cytoplasmic clearing. There is no evidence of nuclear atypia or mitosis [Figure 4]. The diagnosis was IP of the hard palate.

Because of its extensive growth and the possibility of carcinomatous change, the patient received subtotal maxillectomy (from the right second premolar to the left third molar) with reconstruction using the split skin graft and intraoperative placement of an obturator to cover the defect of the hard palate. The definitive histological examination confirmed the diagnosis of IP of the hard palate. Our patient has received close follow-up and at the time of this writing, she had been free of disease for 19 months.

DISCUSSION

IP is the most common benign sinonasal tumor. It is characterized by locally aggressive behavior, high

Address for correspondence:
Dr. Kallianpur AA
E-mail: docash04@yahoo.com

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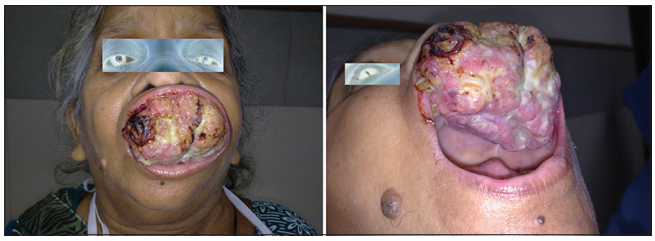

Figure 1: A massive growth at the hard palate masquadering as a carcinoma (left); the mass involved both the hard palate and the left upper alveolus (right)

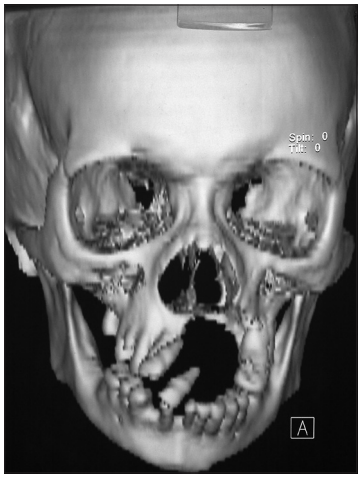

Figure 3: Computerized tomography with 3D reconstruction representing the upper alveolar and maxillary floor destruction

recurrence rate (up to 60%) and malignant transformation.[5] The name "IP" derives from its endophytic growth pattern of epithelium into underlying stroma with the continuity of the basement membrane. Histologically, the nasal columnar epithelium and invaginating gland ducts and their branches undergo squamous metaplasia, which may range from a mild stratified squamous epithelium thickening to large epidermoid masses with marked glycogen secretion within the cells.

It is important to differentiate histologically between the low grade squamous cell carcinoma and IP.[6] The presence of atypia or dysplasia in the lesion indicates premalignant and malignant changes. Synchronous and metachronous lesions of the IP and carcinoma are found in 7.1% and 3.6% of the IP patients.[7] In our case, there was no carcinomatous change.

IP is common in men between 40 and 70 years of age. Clinical symptoms of IP depend on the location. Very often, it presents as unilateral nasal obstruction (98%), headache and frontal pain (23%), rhinorrhea (17%), epistaxis (6%) and anosmia (4%). The tumor can extend to beyond the boundaries of the nasal cavity in 7% of the cases, in 3% of the cases it extends to the nasopharynx and lesser than 2% to the pterygopalatine and intracranial fossa.[8] IP without an involvement of the sinonasal mucosa, like an intraoral lesion, has rarely been reported.[2-4]

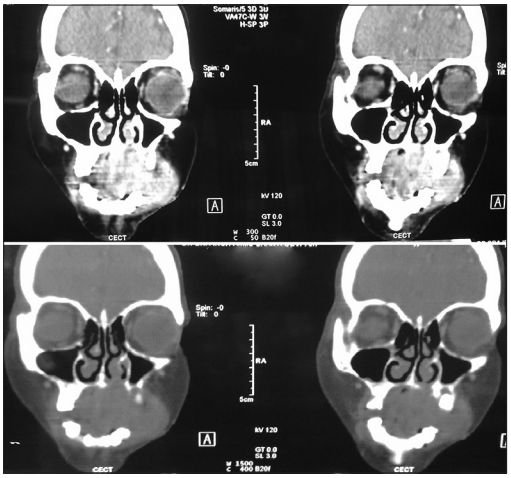

Figure 2: Computerized tomography showing a mass arising from the hard palate and involving the adjacent left upper alveolus

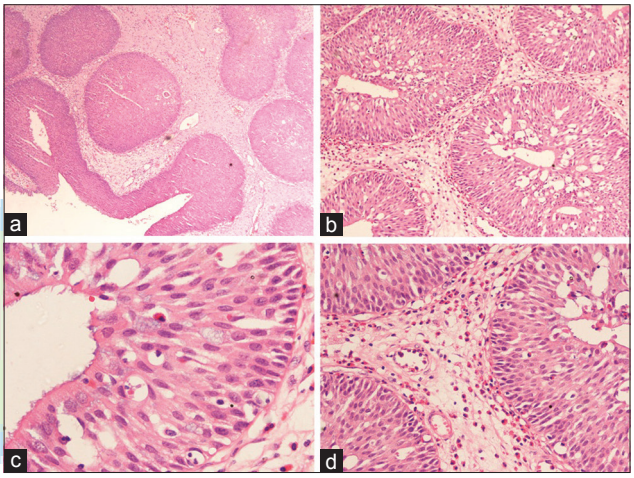

Figure 4: Histopathological pictures showing (a) An inverted growth of squamous epithelium into the underlying connective tissue stroma (×40). (b) Many microcyst are seen within the proliferating epithelium. (c) Some areas presented with mitosis and mild nuclear pleomorphism with no destruction of the basement membrane (original ×400). (d) Squamous cells are intermixed with some mucin-containing cells (original ×200)

In our patient, she had IP of the hard palate, which grew enormously until the patient could not close her mouth.

The treatment of choice for IP, either sinonasal or intraoral, is complete excision. Radical extirpation with/without radiotherapy are indicated in cases of malignant transformation.[2] To reduce the recurrence rate of the tumor, many authors recommend that the adjacent periosteum and bone be removed with the tumor.[1]

This article reported a case of the very rare IP in the hard palate without sinonasal involvement. The tumor mimicked as a carcinoma, arising an important of this report. Complete excision of the lesion, coupled with close follow-up, is essential. For further details, we refer the interested readers to reviews by other authors.[1,2,9]

REFERENCES

1. Salomone R, Matsuyama C, Giannotti Filho O, Alvarenga ML, Martinez Neto EE, Chaves AG. Bilateral inverted papilloma: Case report and literature review. Braz J Otorhinolaryngol 2008;74:293-6.
2. Halimi M, Aghbali A, Emamverdizadeh P, Talesh KT. Inverted papilloma of the palate with malignant transformation. J Oral Maxillofac Pathol 2012;16:291-3.
3. Ho KH. Inverted papilloma – A modified surgical approach to reconstruction of the palate. Br J Oral Maxillofac Surg 1988;26:115-9.
4. Epivatianos A, Antoniades D, Zaraboukas T, Poulopoulos AK. Oral inverted ductal papilloma: Report of a case with immunohistochemical study. Open Pathol J 2008;2:1-5.
5. Michaels L. Benign mucosal tumors of the nose and paranasal sinuses. Semin Diagn Pathol 1996;13:113-7.
6. Papon JF, Lechapt-Zalcman E, Abina M, Abd-al-Sama I, Peynègre R, Escudier E, *et al*. Matrix metalloproteinase-2 and -9 expression in sinonasal inverted papilloma. Rhinology 2006;44:211-5.
7. Mirza S, Bradley PJ, Acharya A, Stacey M, Jones NS. Sinonasal inverted papillomas: Recurrence, and synchronous and metachronous malignancy. J Laryngol Otol 2007;121:857-64.
8. Vrabec DP. The inverted Schneiderian papilloma: A 25-year study. Laryngoscope 1994;104:582-605.
9. Pitak-Arnnop P, Bertolini J, Dhanuthai K, Hendricks J, Hemprich A, Pausch NC. Intracranial extension of schneiderian inverted papilloma: A case report and literature review. Ger Med Sci 2012;10:Doc12.

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