

Case Report: Verrucous Cell Carcinoma Of The Maxillary Antrum

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ÖZET

Olgu Sunumu: Maksiller Sinüsün Verriköz Hücreli Karsinomu
Burun ve paranasal sinüslerin malign neoplazmları tüm baş-boyun tümörlerinin sadece %3' ünü; tüm malignitelerin ise %1' inden azını oluşturur. Histolojik olarak en sık görülen tip, skuamöz hücreli karsinomdur. Bunu adenokarsinom ve minör tükürük bezi tümörleri takip eder. Verrüköz karsinom, skuamöz hücreli karsinomun seyrek rastlanan iyi diferansiye bir formudur. 63 yaşındaki erkek hastanın manyetik rezonans incelemesinde sağ maksiller sinüste ekspansiyona neden olup lamina papriseayı incelten ve orbital alanı daraltan kütle izlendi. Kitle Cadwell-Luck yöntemi ile eksize edildi. Histopatolojik inceleme sonucu verrüköz hücreli karsinom olarak bildirildi. Maxiller sinüste seyrek rastlanan bir verrüköz hücreli karsinom olgusu literatüre katkı amaçlı sunuldu.

Anahtar Kelimeler: Maksiller sinüs, Verriköz hücreli karsinom

SUMMARY

Malignant neoplasms of nasal cavity and paranasal sinuses constitute 3% of all head and neck tumors and less than 1% of all malignancies. The most common histological subtype is squamous cell carcinoma. Adenocarcinoma and tumors of minor salivary glands come next to it. Verrucous carcinoma is a well-differentiated rarely found form of squamous cell carcinoma. A mass lesion which is causing expansion in right maksillary sinus and thus eroding lamina papricea and narrowing orbital field, has been shown during magnetic resonance imaging of a sixty-three years old male patient. The mass is excised with Cadwell-Luc procedure. Result of histopathological examination is reported as verrucous cell carcinoma. A case of rarely found maksillary sinus verrucous cell carcinoma is presented with goal to contribute to literature.

Key Words: Maxillary sinus, Verrucous cell carcinoma

Introduction

The verrucous cell carcinoma of head and neck region is most frequently seen in the oral cavity and larynx (1). Rarely it is also reported to be seen in the orbita (2), middle ear (3), temporal bone (4), columella (5), nasal septum (6), nasopharynx (7) and paranasal sinuses. Verrucous cell carcinomas exhibit locally aggressive behaviour, low metastatic tendency and better prognosis after surgical treatment. Amount of verrucous cell carcinomas originating from the maxillary sinus is reported to be very low in the literature thus we present our case as a recent contribution.

Case report

A seventy-three years old male patient applied to our clinic complaining from a right-sided nasal obstruction with increasing intensity in the last year. On physical examination a mass with a smooth surface was noticed in the right nasal cavity which has dislodged middle and inferior nasal conchae towards medial wall. On paranasal tomographic examination, a hypodense and well-limited lesion was detected which fil-

led the right maxillary sinus, spreading from there to the inferior portion of ethmoidal cells and into the nasal cavity adjacent to the nasal septum, causing an obvious expansion on the inferior orbital wall as well as medial and lateral walls of the maxillary sinus (Figure 1).

The possibility of malignancy was suspected and a magnetic resonance imaging (MRI) was ordered. A contrast-enhanced MRI of the paranasal sinuses showed a mass with 5 cm diameter which caused an expansion in the right maxillary sinus, diminished the thickness of lamina papricea and narrowed the orbital region. The lesion had a hypointense signal intensity on T1A and a heterogen signal intensity on T2A study (Figures 2,3).

A surgical intervention was planned. In accordance with the Cadwell-luc method the maxillary sinus was reached via an incision through the right gingivobuccal junction (Figure 4). Inside the sinus a thick-walled cystic lesion filled with a white coloured and odorous tissue was detected and excised (Figure 5). Erosion of anterior, superior and medial walls of the maxillary sinus was detected. Polypoid lesions inside of the nasal cavity were excised and a medial maxillectomy was performed. Pathological study of the specimen resulted as verrucous cell carcinoma. The postoperative period was uneventful and the patient was discharged 3 days after surgery.

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Figure 1: Computed tomography of paranasal sinuses in coronal cut, showing mass occupying the right maxillary sinus.

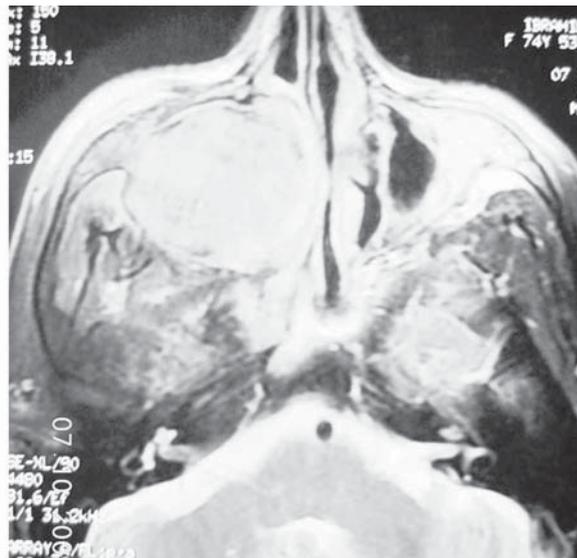


Figure 4: Incision through the right gingivobuccal junction.

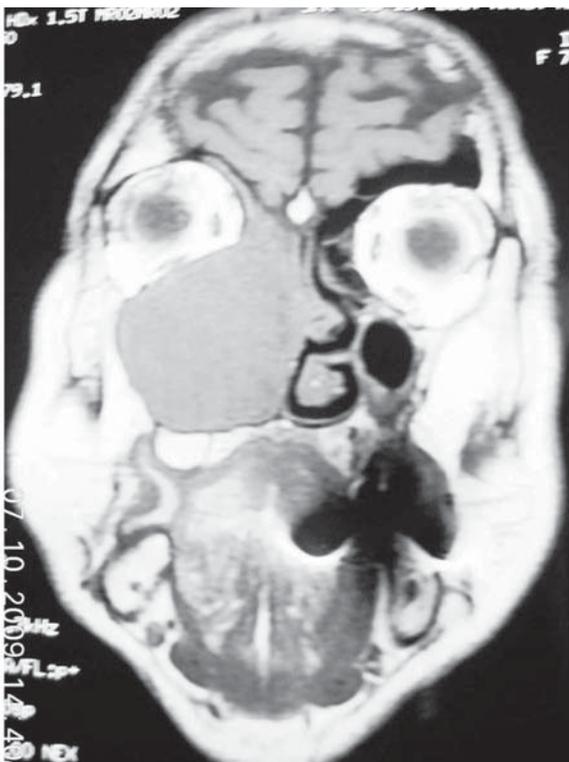


Figure 2 and Figure 3: Contrast-enhanced MRI image shows a mass which caused an expansion in the right maxillary sinus.

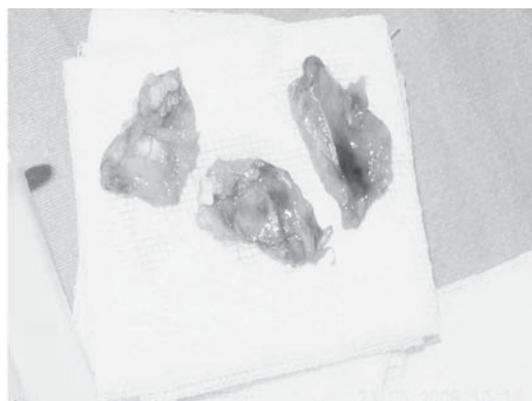


Figure 5: Surgical specimen.

Discussion

Malignant neoplasms of the nose and paranasal sinuses constitute only 3% of all head and neck tumors and fewer than 1% of all malignant tumors (8). Approximately 55% of the paranasal malignancies are originating from the maxillary sinuses and 85% stems from squamous cells. Aflatoxin, wood dust, nickel, chrome, mustard gas and polycyclic hydrocarbons are held responsible as potential etiological agents. HPV type 6,11, 16 and 18 were also identified on verrucous cell carcinomas of larynx and oral cavity (9,10). But HPV could not be related with verrucous cell carcinomas of the paranasal sinuses. The term "verrucous cell carcinoma" was first used in 1948 by Ackerman. He has published 31 cases of verrucous cell carcinoma originating from oral cavity (11). The verrucous cell carcinoma of the head and neck region is most frequently seen in the oral cavity (12) and to a lesser extent in the larynx. It is very rarely encountered in the maxillary sinus.

There are approximately fourteen such cases reported in the English literature (13). Histopathologically, the verrucous cell carcinoma can be differentiated from the classic picture of squamous cell carcinoma by the absence of infiltration into the submucosa, the presence of intact basal membrane and minimal dysplastic changes (14). If a small sized superficial biopsy is taken verrucous cell carcinoma could be mistakenly reported as a benign hyperplasia or a hyperkeratotic and acanthotic squamous proliferation. On the contrary, an exophytic and well-differentiated squamous cell carcinoma with verrucoid appearance could also be diagnosed as a verrucous cell carcinoma. Metastases are rarely encountered and limited to regional lymph nodes. First choice of treatment is surgical excision and the role of radiotherapy is still unknown. The rate of anaplastic transformation was found to be as high as 30% in patients undergoing radiotherapy (15). Ferlito and colleagues have identified a low rate of anaplastic transformation. They have found out that radiotherapy caused anaplastic transformation which progressed to a disseminated disease and many patients were deceased on average 3.3 years after initial diagnosis (16). Anaplastic transformation is also reported in both groups of patients with and without history of previous surgical treatment. In summary, the role of radiotherapy for these tumors still awaits further investigation. But it can be utilized on patients which are unsuitable for surgical treatment or refuse any surgical intervention (17).

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