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MALIGNANT EPITHELIAL TUMORS OF THE MAXILLARY SINUS

Ragıp ONAT[a], İsmail ERMİŞ[b], Işıl ONAT[c], Tahir HAYIRLIOĞLU[d],
Ayhan KONURALP[d], Bedrettin GÖRGÜN[d]

ÖZET

MAKSİLLER SİNÜSÜN MALİGN EPİTELYAL TÜMÖRLERİ

Paranazal sinüslerin malign tümörleri nadirdir; üst solunum ve sindirim sistemi malign lezyonlarının yaklaşık % 3'ü kadardır. Erken tanı, genellikle zordur. Olguların çoğunda, tümör ileri dönemdedir; tek sinüs kavitesinde sınırlı kalmayıp ilerlemiştir (1,2,3). Bu tümörlerin erken tanı ve evrelendirilmesinde radyolojik incelemelerin önemi büyüktür. Tümörün yeri ve yayılımına göre değişen semptomlar, sıklıkla önemsiz sayılıp, kronik sinüzit şeklinde değerlendirilir (1,3,4).

Paranazal sinüs malignitelerinin yaklaşık % 50'si karsinomlardır. Bunların da, % 80'i maksiller sinüsten çıkar, sıklıkla etmoid sinüs ve orbitaya yayılır. En sık histolojik tip skuamöz hücreli karsinomdur. Bunu sırasıyla indiferansiye karsinom, adenoid kistik karsinom ve adenokarsinom izler. Tümörün sinüsteki lokalizasyonu, yayılım derecesi, hücre tipi ve tedavi şekli prognozu etkiler (1,4,5).

Çalışmamızda 1983-1991 yılları arasında İstanbul Tıp Fakültesi Plastik ve Rekonstrüktif Cerrahi A.B.Dalı'nda maksiller sinüs epiteliyal tümör tanısı konan 48 olgunun retrospektif analizi yapıldı. Tüm olguların radyolojik incelemeleri ve preoperatif biopsileri yapılmıştı. En sık rastlanan tip, 35 olgu ile skuamöz hücreli karsinom (% 72,91) dur. Bunu, sırasıyla 8 olguyla (% 16,66) adenoid kistik karsinom, 4 olguyla (% 8,33) adenokarsinom ve 1 olguyla (% 2,08) anaplastik karsinom izlemekteydi. 5 olgu (% 10,41) evre 1, 11 olgu (% 22,88) evre 2, 22 olgu (% 45,83) evre 3 ve 10 olgu (% 20,83) evre 4 idi. Serimizdeki 47 olguya ilk olarak cerrahi girişim yapıldı, 1 olguya ise preoperatif R.T uygulanmıştı. 4 olguya parsiyel, 35 olguya ise total maksillektomi uygulandı. Orbita eksanterasyonu, rutinde olmamakla birlikte, 9 olguda gerçekleştirildi. Boyunda palpabl lenf nodu metastazı bulunan 5 olguya, aynı seansta radikal boyun disseksiyonu yapıldı. Tüm olgulara postoperatif dönemde R.T önerildi. Sadece 12'sinin postoperatif 4-6 hafta 4000-6000 rad'lık R.T aldığı saptandı. 5 yıllık sürvi hesaplamasına uygun 29 olgu, Mart 94'e kadar izlendi. Tüm serinin 5 yıllık sürvisi % 17 olarak saptandı; 5 yıllık sürviler skuamöz hücreli karsinom için % 12, adenoid kistik karsinom için % 29 ve adenokarsinom için % 25 bulundu. İlk tedaviden sonra 9 olguda, 10. aydan sonra nüks gelişti.

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[a] Yrd.Doç.Dr., Trakya Üniv. Tıp Fak. Plastik ve Rekonstrüktif Cerrahi Anabilim Dalı, EDİRNE.
[b] Uzm.Dr., İ.Ü. İstanbul Tıp Fak. Plastik ve Rekonstrüktif Cerrahi Anabilim Dalı, İSTANBUL.
[c] Araş. Gör., Dr., İ.Ü. İstanbul Tıp Fak. Halk Sağlığı Anabilim Dalı, İSTANBUL.
[d] Prof. Dr., İ.Ü. İstanbul Tıp Fak. Plastik ve Rekonstrüktif Cerrahi Anabilim Dalı, İSTANBUL.

Cerrahi ve R.T'nin kombine uygulandığı 12 olgunun sadece 1'inde lokal nüks saptandı. Bu tümörlerin klinik, histopatolojik özellikleri, tedavi şekilleri ve prognozu yönünden tartışıldı.

Anahtar Kelimeler: Maksiller Sinüs, Karsinom.

SUMMARY

A retrospective analysis of 48 patients with malignant epithelial tumor of maxillary sinus is presented. Clinical, histologic, therapeutic and prognostic considerations of these tumors are discussed.

Key Words: Maxillary Sinus, Carcinoma.

INTRODUCTION

Malignant tumors of the paranasal sinuses are rare; approximately 3 % of malignant lesions involve the upper aerodigestive system. The diagnosis is usually delayed, and in the majority of cases the tumor is advenced and not confined to a single sinus cavity (1,2,3). The radiologic evaluation of these tumors plays an important part in their early diagnosis. A radiologic assessment is of the utmost importance in staging, and provides a rational approach for treatment, using surgery and radiation treatment. In many cases, the early symptoms are often trivial and take the form of chronic sinusitis. The symtoms depend on the site and extension of the tumor, and consist of nasal obstruction with discharge, a mass in the nasal cavity, facial pain, exophtalmos, swelling in the cheek, paresthesia, epiphora, and loosening of teeth with a mass in the oral cavity (1,4,5,6,7).

Among malignant tumors of the paranasal sinuses, represent almost 50 %, of which 80 % arise in the maxillary sinus. They frequently extend into the etmoid sinus and into the adjacent orbit. The extent, rather than the degree of differantiation of squamous cell carcinoma of the maxillary sinus, is the most frequent determinant in the prognosis. The most commom histologic type encountered is the squamous cell carcinoma, followed by undifferentiated carcinoma, adenoid cystic carcinoma, and adenocarcinoma (1,4,5,8,9). Conventional sinus views are often the first radiologic examinations. The radiologic modalities of choice for determining the diagnosis and extent of the disease are CT and MRI. It is difficult to compare the results of treatment because of the influence of the anatomic site, the clinical stage and the histologic type of the tumor (4,7,10).

MATERIALS AND METHODS

48 patients with the diagnosis of malignant epithelial neoplasm of the maxillary sinus diagnosed and treated in Istanbul University, School of Medicine, Department of Plastic and Reconstructive Surgery from 1983 to 1991 were reviewed. This series

includes only tumors considered to have originated within the maxillary sinuses, excluding tumors of the nose and other adjacent structures invading the sinuses. The age of the patients ranged from 10 to 82 years (mean age of 47). The group consisted of 28 males and 20 females. The common symptoms were swelling of the cheek, local pain, unilateral nasal discharge, nasal obstruction, numbness, toothache and loosening of teeth.

Radiologic examination revealed cloudines of or soft tissue mass in the sinuses. Eighty per cent showed definitive destruction of the bony sinus walls.

Histopathologic diagnosis was made in all cases. Squamous cell carcinoma was the most frequent (35 cases, 72,91 %). Adenoid cystic carcinoma was present in 8 cases (16,66 %), adenocarcinoma in 4 cases (8,33 %) and anaplastic carcinoma in 1 case (2,08 %).

Retrospectively, 5 cases (10,41 %) were classified as stage I, 11 cases (22,91 %) as stage II, 22 cases (45,83 %) as stage III, and 10 cases (20,83 %) as stage IV.

Patients untreated before referral to our clinic are designated as primary cases, while those who had been treated elsewhere are considered secondary cases. There were 42 primary cases and 6 secondary cases. In the latter group, the nature of the previous treatment varied considerably, but in the majority of the cases treatment consisted of some form of surgery, either alone or combined with radiotherapy.

In 47 patients in this series, surgery was the initial and principal treatment for cancer of maxillary sinus. One patient had preoperative radiotherapy before surgery. The surgical procedures employed in these patients were partial maxillectomy in 4 patients, total maxillectomy in 35 patients. Removal of the contents of the orbit was not routine, but was carried out in 9 patients as a part of the initial surgical procedure. Unless specifically indicated, the frontal and sfenoid sinuses were not entered. There was laceration of the dura and leakage of cerebrospinal fluid in one case. 5 cases who had lymph nodes underwent radical neck dissection. All the patients were referred to oncology for radiotherapy following surgery and 12 patients had a tumor dose of 4000-6000 rads in 4-6 weeks.

RESULTS

The results are given in Table 1, which presents 29 patients seen before March 1994 and eligible for 5-year survival study. The whole series showed 5-year cure rate of 17 %. The 5-year cure rates were 12 % for squamous cell carcinoma, 29 % for adenoid cystic carcinoma and 25 % for adenocarcinoma. After the initial treatment, 9 cases developed recurrences in 10 or more months. The recurrence was mainly local and seen only in one case following combined surgery and radiation treatment.

Table I : Results

Stage	Number eligible	Number and % of 5 - year cure	
Stage I	17	2	(12 %)
Stage II	7	2	(29 %)
Stage III	4	1	(25 %)
Stage IV	1	0	
Total	29	5	(17 %)

DISCUSSION

The treatment policies for cancer of maxillary sinus have been inconsistent in various centers and have gradually changed in some centers. Some authors have recommended surgery, while others have advocated primary radiation therapy (5,7,11,12). Because of the limited success of either modality alone, the most effective approach has been a combined approach of surgery and radiation (11,12,13).

The number of patients in our series does not include the patients who had neoplasms classified by Sisson as "intermediate naoplasms" (ameloblastoma, fibrous dysplasia, esthesioneuroblastoma, angiofibroma and inverting papilloma) (4,12).

There was a preponderance of male to female which agrees with other reported sex incidence (4,7).

Skin grafting of the operative defect is routinely done in our clinic following maxillary resection. Such grafts provide an excellent surgical dressing during the immediate post-operative period and there after a clean and dry surface. The skin grafts can effectively control leaking of cerebrospinal fluid and serve as a barrier to intracranial infection. They also facilitate early fitting of a prosthesis. We observed better results in nonirradiated cases.

The site, the extent and the histology of tumors and the type of treatment have been reported to influence the prognosis (1,3,4,12). This may explain the wide variation in the reported 5-year survivals (5,12,14). Because of hidden localization, the exact time of onset of cancer in this region is difficult to determine and the estimation of the actual duration is a matter of speculation (3,4,6,9). Advanced disease in the etmoid area, invasion of the medial orbital wall or destruction of the infraorbital plate are the usual indications for sacrifice of the eye (12,15,16). In our series, the prognosis was poor in cases with tumor invasion of the orbit, the etmoids and the cribriform plates. The prognosis was also poor in the presence of regional lymph node metastasis, in agreement with other reports (4,5,15,17).

The final clinical assessment of all the patients tended to reveal that the inability to control the primary was the main course of failure and agressive surgical procedure should be accomplished at the initial surgical treatment of these patients. A combined

approach of surgery and radiation can produce the best results with more adequate control of the primary than either therapeutic modality alone.

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