



The pleomorphic adenomas of the small salivary glands in the Department of Maxillofacial Surgery in a Provincial Hospital in Rzeszow

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ABSTRACT

Pleomorphic adenomas are non-malignant tumours originating in epithelium. They are most often found in the parotid gland. Their location apart from the parotid gland is quite rare. That type of tumour is usually treated surgically. The aim of this paper is to describe own observations of the symptoms of pleomorphic adenomas that were not located in the parotid gland. Analysis of the clinical material was based on retrospective assessment of 41 patients hospitalised in the Department of Maxillofacial Surgery during the period 1991-2010 because of pleomorphic adenomas located in the small salivary glands. The group consisted of 24 women and 17 men aged between 24 and 79. Tumours were most often round or oval, between 0.7 cm and 3.5 cm and found in the palate area. All patients were treated surgically. Pleomorphic adenomas of small salivary glands, similarly to tumours located in the parotid gland, were more often found in women. Non-symptomatic course of the illness was the main reason behind late diagnosis. Tumours from the group of pleomorphic adenomas originated from small mouth glands were most often found in the hard palate.

Keywords: pleomorphic adenoma, small salivary gland, localization, treatment

INTRODUCTION

Group of rare tumours located in the maxillofacial area [7, 8, 9] includes, amongst others, pleomorphic adenomas of the small salivary glands. Most tumours of that kind are found within the major salivary glands.

About 75%-85% of pleomorphic adenomas arise in the parotid gland. Approximately 90% of these, are located in the superficial lobe, with the remaining 10% found deep in the gland [2]. The slow-growing nature of this tumour results in delayed consultations and late presentations. Gold standard treatment of pleomorphic adenomas in this context is surgical excision. A partial or complete parotidectomy is performed, depending on the size and location of the tumour [6]. There is a high recurrence risk (20-40%) associated with extirpation of the tumour. Most

authors agree, that this method should be discarded. Percentage of post-surgical recurrences varies, depending on several factors including tumour morphology, presence or absence of the capsule and involvement of local satellite nodules. Due to its anatomical relation to the facial nerve, facial nerve palsy is the most commonly observed complication [2, 4, 6]. Pleomorphic adenomas of the accessory salivary glands are rarer than other parotid tumours, although they are more likely to undergo malignant transformation. According to the current literature, there were approximately 6-18% cases of malignant transformations [1, 12]. Common sites of pleomorphic adenomas include the oral mucosa, vermillion zone, soft palate, nasal mucosa and mucosa of the maxillary sinus, with the hard palate being the most common site. Occasionally, they have been found in the pharynx, larynx, trachea and bronchus [10].

Studies conducted by Sikorow and Vital [1] have highlighted the histological differences seen in pleomorphic adenomas found in the parotid gland compared to those in the accessory salivary glands. The former have a higher proportion of stroma compared to cells. The opposite is

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true in the latter. The cellular-rich histology of tumours found in the accessory salivary glands has been proposed as an explanation for its malignant tendency [12]. Features that often accompany this transformation include a sudden growth, surface bleeding, dysaesthesia and paraesthesia [1]. These occur mainly in tumours which have had a long duration of growth. During surgery, a margin of normal tissue is excised along with the tumour due to the absence or a very thin capsule. This also ensures any satellite nodules, if present, are removed [3, 11].

Approximately 0.4% of all pleomorphic adenomas are thought to arise in the nasal mucosa. These usually develop in the nasal septum, causing various complications like blockage of the nasal passages, epistaxis, haemoptysis, dysosmia and lacrimation [1, 5, 13].

The aim of the study was to analyse the appearance of these tumours and record specific observations noted during the examination of pleomorphic adenomas of the accessory salivary glands. Each case was hospitalised and underwent surgery at the Department of Oral and Maxillofacial Surgery of the Regional Specialist Hospital in Rzeszow.

MATERIALS AND METHODS

Records of patients who received treatment for pleomorphic adenomas of the accessory salivary glands from 1991 until 2010 were studied. This, together with the pathomorphology findings of the adenomas found in these patients, were analysed retrospectively. Forty-one patients who were operated on in the Maxillofacial Department during the period of 1991-2010, were analysed as the basis of this study.

RESULTS

Forty-one patients diagnosed with pleomorphic adenomas between 1991 and 2010 were involved in this study. These tumours were located in the orofacial region, always originating from the accessory salivary glands. There were 17 male and 24 female patients aged between 29-73 years. The majority of the patients, eighteen were referred to the Maxillofacial Department by Dentists. Fourteen cases were referred by the General Practitioner and six by Internal Medicine Doctors. Three patients, who did not have a referral, were guided by the accidental dis-

covery of a lump in the oral cavity. In most cases, the patients themselves noted the presence of the tumour and consulted various doctors. The locations of pleomorphic adenoma are shown in the Table 1.

Twenty-three cases involved exorbitance on the palate, fifteen cases involved the hard palate and eight involved the soft palate. Five patients had tubercles on the lower lip and one on the vermilion zone. Pleomorphic adenomas were observed on the buccal mucosa of 6 patients. Only two patients had an adenoma on the vestibule of the nose, three on the fundus of the oral cavity and one on the palatoglossal fold. The tubercles were of varying shapes and sizes; from 0.7-3.5 cm. The most common diameter of the tumour ranged from 1.1-2.0 cm. Thirty-two cases involved spherical tubercles with unchanged mucous membranes with broad base knitted to the base. The other nine had oval tubercles: two had ulcerations and seven had normal mucosa. Table 2 contains the data surrounding the size and shape of the tubercles.

In 27 out of the 41 patients, the tumour was asymptomatic. Six patients only complained of occasional pain at the site of the tumour, and there were no other symptoms of illness. Eight patients who had dentures experienced non-fitting dentures and poor adhesion of the upper denture. Based on history and physical examination, 25 patients were diagnosed with adenomas, 12 with mucoceles of the lip and 4 with oral fibromas.

Treatment. The treatment was a surgical excision of the adenoma with margins. In 32 cases, general anesthetic was used while in the other 9 cases procedure was conducted under local anaesthetic. Closure technique was usually sutures except for 7 cases involving the hard palate, which was left to heal on its own. After removal of the tubercles, the defect was covered with a mucosal membrane graft in 5 patients and with a skin graft taken from the neck in 3 patients. The post-operative outcome was good; the majority of patients suffered no complications. The wounds healed within 14 days to 4 weeks – an average of 21 days. Only 6 patients developed infections. In most cases, histology confirmed the initial clinical diagnosis; remaining 16 cases were diagnosed clinically as fibroma or mucocele and the histological test verified the clinical diagnosis.

Table 1. Localization of the Pleomorphic Adenomas

	Hard palate	Soft palate	Skin of lower lip	Vermilion zone of the lower lip	Mucosa of the cheek	Vestibule of the nose	Palatoglossal fold	Fundus of the oral cavity
Number	15	8	5	1	6	2	1	2

Table 2. Tubercles: Size and shape

Feature	Size				Shape	
	cm	1,1cm - 2,0cm	2,1cm - 3,0cm	3cm	oval	spherical
Number	8	24	7	2	9	32

DISCUSSION

A pleomorphic adenoma is a benign tumour commonly located in the parotid gland and rarely found in the accessory salivary glands. Data from the literature suggests that their presence is evaluated for 5-10% of all pleomorphic adenoma. The results obtained in present study are consistent with those of other authors that observed a slight increased tendency for women to develop this type of tumors. The slow-growing nature of this tumor, along with the lack of symptoms, often results in delayed consulting and hence, delayed treatment. Most adenomas were more than 1 cm in diameter, making the primary suturing of the wound more difficult, particularly when it involves the hard palate. The common clinical features observed were a spherical shape with a diameter greater than 1 or 2 cm, slow-growing nature, involvement of the hard palate and lack of local inflammation. About 61% of adenomas were diagnosed through history and clinical examination i.e. the histopathology results was consistent with the physical examination. Thirty-nine per cent of all pleomorphic adenomas were diagnosed on the base of the physical examination initially as sialocele or fibroma. All patients received surgical treatment. Among the 41 patients treated in the *Maxillofacial Surgery Department*, there were no local recurrences or malignant transformations. The period of postoperative wound healing was generally uncomplicated. In most cases, the procedure was conducted under general anesthesia. After the operation the wound healing was usually asymptomatic. Recent literature has reported frequent malignant transformations in these tumours.

CONCLUSIONS

Pleomorphic adenomas of small salivary glands are a rarely occurring group of benign tumours that typically

form on the palate taking either oval or spherical shape. Asymptomatic and slow growth of these tumours results in an accidental diagnosis, when an examination is performed for another reason. The treatment of choice is surgical excision including a margin of healthy tissue. In the analyzed material, there was no postoperative tumour recurrence.

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