OPEN ACCESS

Saudi Journal of Medicine

Abbreviated Key Title: Saudi J Med
ISSN 2518-3389 (Print) |ISSN 2518-3397 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Original Research Article

Salivary Gland Tumors, Clinical Epidemic Study

Sefrioui Taha Ismail*, Rahim Hanae, Ait Taleb Hajar, Nitassi Sophia, Bencheikh Razika, Oujilal Abdelilah, Benbouzid Mohamed Anas, Essakalli Leila

Department of Otorhinolaryngology and Head and Neck Surgery, Specialities Hospital, Faculty of medicine, Mohammed V University, Rabat, Morocco

DOI: 10.36348/sjm.2021.v06i07.002 | **Received:** 16.05.2021 | **Accepted:** 24.06.2021 | **Published:** 03.07.2021

***Corresponding Author:** Sefrioui Taha Ismail

Abstract

Salivary gland tumours affect the parotid gland in 80% of cases, the submandibular gland in 10-15% of cases, while the sublingual gland is rarely affected (in 5-10% of cases) [1, 2]. 80% of parotid gland tumours and 50% of submandibular gland tumours are benign. This is a retrospective descriptive study within the Department of Otorhinolaryngology of the Specialty Hospital of the CHU Ibn Sina of Rabat, involving 84 patients hospitalized for management of a tumor of the main salivary glands (parotid and submandibular) over a 4-year period from September 2015 to September 2019.The median age of our patients was 42 years with extremes of 7 and 80 years. The average age of patients with a benign tumour was 40 years. The average age of patients with a malignant tumour was 54 years. The sex ratio was 0.58. We didn't find any specific risk factors in our patients. The average time between onset of symptoms and consultation was 38 months with extremes ranging from 2 to 120 months (10 years). In malignant tumours of the salivary glands, there is no predominance of sex, and the average age of discovery is between 55 and 65 years. For Dale [4], the majority of parotid cancers occur between the ages of 50 and 60, 2% of these tumours occur in children and 16% in subjects under the age of 30. Through our literature review, we found no risk factors specific to parotid tumours. Some authors report a risk of salivary gland tumours from exposure to silica dust [5]. Salivary gland tumours are common, but most often they are benign. 80% of parotid gland tumours and 50% of submandibular gland tumours are benign. Parotid involvement is dominated by pleomorphic adenoma, and submandibular involvement is dominated by chronic lithiasic maxillite.

Keywords: Salivary gland; tumors.

INTRODUCTION

Salivary gland tumours affect the parotid gland in 80% of cases, the submandibular gland in 10-15% of cases, while the sublingual gland is rarely affected (in 5-10% of cases) [1, 2]. 80% of parotid gland tumours and 50% of submandibular gland tumours are benign. 95% of salivary gland tumours occur in adults, and 5% occur in children and are dominated by vascular tumours. These tumours affect both men and women.

The purpose of our work is to have an epidemiological and clinical study of principal salivary gland tumours.

MATERIELS ET METHODS

This is a retrospective descriptive study within the Department of Otorhinolaryngology of the Specialty Hospital of the CHU Ibn Sina of Rabat, involving 84 patients hospitalized for management of a tumor of the main salivary glands (parotid and submandibular) over a 4-year period from September 2015 to September 2019.

The parameters studied were the age and sex of the patient, the reason and time of consultation, all the clinical features of the swelling. For each diagnostic method, we studied the radiological criteria used to distinguish a malignant tumor from a benign tumor: Concerning ultrasound, the limits of the mass, its contours, its appearance, its echogenecity, the existence of lymphadenopathy, posterior reinforcement, areas of necrosis and hemorrhage.

At the CT: we studied the limits of the mass, its contours, its behaviour at the injection of the contrast agent, the extension to the surrounding tissues, the existence of necrosis, hemorrhages, calcifications, or cystic degeneration. For MRI, the tumor signal in T1W and T2W sequences was studied in addition to the characteristics sought at the CT.

RESULTS

The median age of our patients was 42 years with extremes of 7 and 80 years. The average age of patients with a benign tumour was 40 years. The average age of patients with a malignant tumour was 54 years. The sex ratio was 0.58.

We didn't find any specific risk factors in our patients. The average time between onset of symptoms and consultation was 38 months with extremes ranging from 2 to 120 months (10 years).

Cervical swelling has been a constant telltale sign in all patients. Clinical examination revealed that Parotide was involved in 90.5% of cases (76 cases), and the submandibular gland in 9.5% of cases (8 cases). Inflammatory signs were found in 6% of cases (5 cases), all at the parotid level. The consistency of the mass was hard in 21% of cases (18 cases), firm in 73% of cases (61 cases), and soft in 6% of cases (5 cases). The limits were Net 74% of cases (62 cases), and poorly defined in 26% of cases (22 cases). The mass was mobile compared to the two planes in 64% of cases (54 cases), and fixed in 36% of cases (30 cases).

Skin infiltration was found in 8% (7 cases). Facial paralysis was found in 7% (6 cases). Examination of the lymph nodes had found cervical lymphadenopathy jugulo-carotid superior homolateral in 19% of cases (16 patients/84 patients). The endobuccal examination did not reveal any abnormalities in the orifice of the Stenon canal, or the Wharton. In our series, tumours involved the parotid gland in 76 cases, 79% of which (60 cases), were benign, and 21% of cases (16 cases) were malignant (Figure 33). Thus the tumours interested the submandibular gland in 8 cases (or 9.5% of cases) whose histology came back in favor of benign in any case.

Aspect per-opératoire d'un adénome pléomorphe de la parotide droite

DISCUSSION

In malignant tumours of the salivary glands, there is no predominance of sex, and the average age of discovery is between 55 and 65 years.

For Dale [4], the majority of parotid cancers occur between the ages of 50 and 60, 2% of these tumours occur in children and 16% in subjects under the age of 30.

Through our literature review, we found no risk factors specific to parotid tumours. Some authors report a risk of salivary gland tumours from exposure to silica dust [5].

The swelling of the parotid or submandibular region was a constant telltale sign. Facial paralysis was noted in 6 cases (7%). According to Dale [6], this is a sign that worsens the prognosis and is found in 14% of malignant parotid tumours, with 100% mortality at 5 years.

Cervical lymphadenopathy was reported in 16 patients (19%). Bron [7] in his study, noted the existence of lymphadenopathy in 23% of cases, which is somewhat similar to the data in our series.

These last two classical semiological elements are found in this context only in 10% to 45% of cases [3]. About one-third of the malignant lesions in the parotid gland have a clinical appearance that suggests benign [3]. It should be noted that the seniority of the injury does not always mean benign [3].

The Clinical Examination found that 76 patients (90.5% of cases) had parotid involvement while 8 patients had submandibular gland involvement (9.5% of cases).

Consistency, Regardless of mass location, 73% of patients had firm consistency, 21% had hard consistency and 6% had soft consistency.

Regarding mobility, the tumours were clinically mobile compared to the two planes in 64% while 36% of the cases the tumour was fixed.

Skin infiltration was found in 8% (7 cases). Homolateral superior jugulo-carotid cervical lymphadenopathy was found in 19% of cases.

An analysis of the salivary gland tumours treated over a 10-year period at Nottingham showed that 66% of the tumours were benign and 34% malignant [6]. In our series the definitive histological examination concluded in 81% of cases to benign tumours, and in 19% of cases to malignant tumours, which joins the data of the literature on the prevalence of benign tumours at the level of salivary glands.

CONCLUSION

Salivary gland tumours are common, but most often they are benign. 80% of parotid gland tumours and 50% of submandibular gland tumours are benign. Parotid involvement is dominated by pleomorphic adenoma, and submandibular involvement is dominated by chronic lithiasic maxillite. These tumors are characterized by a varied clinical presentation, by a great diversity of anatomopathological forms and by often complex treatments including surgical. Pleomorphic adenoma remains the predominant histological type.

MRI is currently the exam of choice in the exploration of salivary gland tumor masses with a good diagnostic value of malignancy or benign.

Surgery with extemporaneous anatomopathological examination represents the last diagnostic step and the first therapeutic gesture.

REFERENCES

1. Califano, J., & Eisele, D. W. (1999). Benign salivary gland neoplasms. Otolaryngologic clinics of north America, 32(5), 861-873.
2. Société française de carcinologie cervico-faciale. Congrès, Lacomme, Y., Leroux-Robert, J., & Leroux-Robert, J. (1990). Tumeurs des glandes salivaires: XXIIe Congrès de la Société française de carcinologie cervico-faciale. Masson.
3. Paris, J., & Zanaret, M. (2004). Bilan d'une tumeur parotidienne isolée. In Annales d'oto-laryngologie et de chirurgie cervico-faciale (Vol. 121, No. 5, pp. 251-256).
4. de Oliveira, F. A., Duarte, E. C. B., Taveira, C. T., Máximo, A. A., de Aquino, E. C., de Cássia Alencar, R., & Vencio, E. F. (2009). Salivary gland tumor: a review of 599 cases in a Brazilian population. Head and neck pathology, 3(4), 271.
5. Rice, D. H. (1999). Malignant salivary gland neoplasms. Otolaryngologic Clinics of North America, 32(5), 875-886.
6. Bradley, P. (2001). General epidemiology and statistics in a defined UK population. Controversies in the management of salivary gland disease. Oxford University Press, Oxford, 3-12.
7. Bron, L. P., Traynor, S. J., McNeil, E. B., & O'Brien, C. J. (2003). Primary and metastatic cancer of the parotid: comparison of clinical behavior in 232 cases. The Laryngoscope, 113(6), 1070-1075.