ISSN : 2350-0743

www.ijramr.com

International Journal of Recent Advances in Multidisciplinary Research
Vol. 07, Issue 01, pp. 5472-5473, January, 2020

RESEARCH ARTICLE

PREVALENCE OF SCHWANNOMA OVER 5 YEARS- AN INSTITUTIONAL EXPERIENCE

[1,*]Rene Jochebed, S. and [2]Dr. Gheena Sukumaran

[1]Graduate student, Saveetha Dental College and Hospitals, Saveetha University, Saveetha Institute of Medical and Technical Sciences, Chennai-77

[2]Reader, Department of Oral Pathology, Saveetha Dental College and Hospitals, Saveetha University, Saveetha Institute of Medical and Technical Sciences, Chennai-77

ARTICLE INFO

Article History:
Received 20th October, 2019
Received in revised form
19th November, 2019
Accepted 15th December, 2019
Published online 30th January, 2020

Keywords:
Schwannoma, Prevalence,
Site, Lesion, Rare.

ABSTRACT

Schwannoma is a benign tumor of the Schwann cells of the neural sheath. The exact cause is unknown, but it can occur due to any gene defect or associated with certain disorders. It is a non spreading tumor, and it commonly affects the head and neck region. The aim of this study was to determine the prevalence of Schwannoma over the past 5 years with the help of an institutional data. Knowledge regarding the prevalence of Schwannoma is required when it comes to research purposes and it would be better when the treatment options are considered. The results of this study showed that the prevalence of Schwannoma is found to be very rare, which is in accordance with the current literature.

INTRODUCTION

Schwannoma, also known as neurilemmoma or neurinoma is a benign neoplasm. It arises in the Schwann cells of the neural sheath of the peripheral, autonomic and cranial nerves in origin. (1) They usually appear in the soft tissue of the head and neck region, extremities and posterior mediastinum (2). The etiology is unknown, but it is postulated that the lesion arises by proliferation of Schwann cells at one point inside the perineurium. Intra Oral Schwannomas are solitary, slow-growing lesions that are usually asymptomatic and occur at different age groups. Schwannoma has a predilection for the head and neck region (25% - 45%), however intra oral lesions are rare. (3) Gallo et al reported that tongue was the most common site of occurrence in the 157 cases of oral Schwannoma that he recorded. Other common locations for oral cavity are buccal mucosa, intra medullary bone of maxilla or mandible, floor of mouth, palate, gingival, lips, and vestibular mucosa. Anti- S100 protein is the most significant antibody used to identify Schwannoma. The first line of treatment is surgical excision of the tumor. They have good prognosis and a low risk of recurrence. This is a short study where the prevalence of Oral Schwannoma over the past 5 years was determined with the help of an institutional data.

Corresponding author: **Rene Jochebed, S.,**
Graduate student, Saveetha Dental College and Hospitals, Saveetha University, Saveetha Institute of Medical and Technical Sciences, Chennai-77.

MATERIALS AND METHODS

Data registers and records of patients of Saveetha Dental College and Hospitals between the years 2011 and 2016 were used to collect data. All the cases reported of Schwannoma were recorded from the data over the past 5 years. Data such as age, gender, location of the lesion and type of biopsy was noted and tabulated. The histopathological features which lead to the diagnosis of Schwannoma was also recorded. Percentage was calculated and graphs were drawn with the analyzed data.

RESULTS AND DISCUSSION

Out of the 1849 cases of pathological cases reported, only 3 were found to be recorded as Schwannoma, which gives an incidence rate of 0.16%. This indicated that the occurrence of Schwannoma is very rare. The details of the cases recorded are given in Table-1. Oral Schwannoma is a rarer, solitary tumor, generally asymptomatic and can present in any age. It is reported to be common in the 2nd and 3rd decades of life, however the reported cases were seen to be in the 4th and 6th decades. In this study, he prevalence of Schwannoma was found to be in the third and sixth decade. (Figure-2). William et al findings showed that 83% of the cases they studied were manifested in males, while for Lucas there was a greater predilection for females, and for Enziner and Weiss, there was an equal distribution between both sexes. (4) This study found that Schwannoma was reported only in females (Figure -3). In the oral cavity, Schwannoma commonly occurs in the tongue, followed by the palate and buccal mucosa, floor of the mouth

Table 1. Details of cases reported

S. NO	YEAR	AGE	SEX	SITE	TYPE OF BIOPSY
1.	2015	32	F	Buccal Mucosa	Excisional biopsy
2.	2015	32	F	Infra temporal region	Excisional biopsy
3.	2012	52	F	Right submandibular region and medial side of ramus of mandible	Excisional biopsy

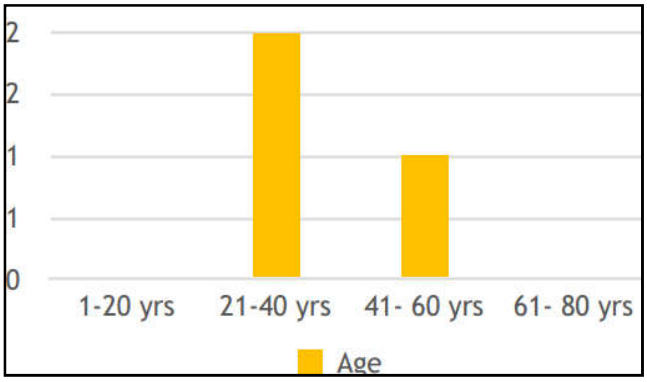

Figure 2. Age of occurrence of Schwannoma

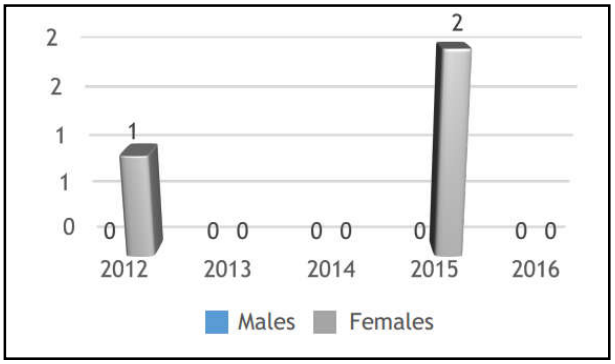

Figure 3. Number of cases reported in Males and Females

and so on. In some cases, the tumor can be intraosseous also. The reported sites of Schwannoma are the buccal mucosa, infra temporal region and the Right submandibular region and medial side of ramus of mandible. Wright and Jackson reported 146 cases of Schwannoma of the oral Cavity, out of which 52% involved the tongue, 19.8% involved the buccal and vestibular mucosa, 8.9% the soft palate and 19.24% in the gingiva and lip.

The differential diagnosis of Schwannoma includes lesions such as traumatic neuroma, neurofibroma, granular cell tumor, non ossifying fibroma, lipoma and leiomioma. (5) Excisional biopsy was done and the histopathological studies were then carried out. Under H and E staining, the following features were visible: alternate areas of highly cellular, compact areas and loose spongy areas of low cellularity, indicating Antoni type A and Antoni type B type of arrangement. Ultrasonography, CT and MRI maybe helpful diagnostic and treatment tools. The treatment for benign Schwannoma is surgical removal of the lesion. Excisional biopsy was done in all reported cases.

Conclusion

Schwannoma is a rare lesion which is not often encountered in clinical practice. It was reported only 0.16% over the past 5 years as per the institutional data, which is in accordance with the current literature. The final diagnosis should be done after histopathological and in some cases, immunohistochemical analysis.

REFERENCES

Ajith Singh Raathore et al., 2015. Neurilemmoma of Retromolar Region in the Oral Cavity, Hindwai Publishing Corporation; Case reports in dentistry.

Jahanshah Salehinejad et al., Oral Schwannoma: A Systematic Review of the Case Reports, JDMT; 5: 99- 111.

Manish Chandra et al., 2013. Tongue Schwannoma: A Case Report with review of literature, JK Practitioner; 18: 28-34.

Manoela Domingues Martins et al., 2009. Intra- Oral Schwannoma: Case report and literature review, *Indian J Dent Res.,* 20: 121- 125.

Marc Cohen, Marilene B. Wang, 2009. Schwannoma of the tongue: two case reports and review of the literature, *Eur Arch Otorhinolaryngol.,* 266: 1823- 1829.

****