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SCHWANNOMA- A REVIEW

ABSTRACT:
Schwannomas are benign neoplasms with debatable etiology, which commonly arise from neural sheath Schwann cells. They are solitary, slow-growing lesions occurring at different ages especially in intraoral site. Lesions are normally asymptomatic and now and again, they are accompained by pain and paresthesia whenever seen in the intraosseous sites of the mandibles. Diagnosis of schwannoma is set up through histopathological assessment and immunohistochemical assessment, and the first line treatment includes the surgical removal of the tumor without affecting of neighboring structures. Anti-S100 protein is the most noteworthy antibody response used to recognize schwannomas. Schwannomas are known to have better prognosis, and if the lesion is totally excised, there is no chance of recurrence.

Key words: Schwannomas, Schwann cells, S-100, Intraosseous.

1. INTRODUCTION:

Schwannomas, otherwise called neurilemmoma, neurinoma, or perineural fibroblastoma, are benign neoplasms that generally show up in the soft tissues of head and neck (25-45%) [1]. Oral schwannomas are commonly asymptomatic, while sometimes, they may be accompanied by pain and paresthesia whenever seen in the intraosseous districts of the mandibles. In such cases, these tumors may cause bone expansion, pain and paresthesia [2]. Actually they are solitary, also they can able to multiplication in neurofibromatosis. The most common sites of intraoral schwannomas are the tongue, palate, floor of mouth, buccal mucosa, lips and jaws [3]. Schwannomas could be mistaken for other favorable lesion, for example, fibroma, mucocele, lipoma, neurofibroma and other salivary gland tumors.

2. CLINICAL FEATURES:

The tumor may emerge at any age. Some case series shows that the schwannoma is more normal in adult, as opposed to the neurofibroma which will in general be more frequently seen in young children[4]. Most reports recommend that most of tumors are occured between the ages of 10 and 40 years[5,6]. Some cases report a higher frequency of Schwannoma in the female populace, while others show a slight male

predominance [6]. Clinically, the tumor shows up as a smooth-surfaced, normally painless, delicate tissue swelling with unblemished overlying epithelium

3. RADIOLOGICAL FEATURES:

Radiological methodologies, for example, computed tomography (CT) and magnetic resonance imaging (MRI), ought to be utilized for the differential conclusion of schwannoma, particularly to assess distinctive neoplastic cycles including floor of the mouth. Panoramic X-ray is a complementary diagnostic measure for oral schwannoma as such, this method was utilized in all the investigated examinations. On a similar note, MRI is a fundamental component in the conclusion of these lesions because of the mucous and exophytic nature of schwannomas and could give solid data about these cases. Then again, intraosseous schwannoma might be mistaken for odontogenic cysts or ameloblastoma. While radiological findings can't recognize these lesions, CT-scan could give an exact analysis. Through strategies, for example, CT-scan and MRI, important information could be acquired for the precise determination of schwannoma, while biopsy and histopathological assessment are basic to the complete finding of these lesions[7].

4. HISTOPATHOLOGICAL FEATURES:

Histopathologically, schwannoma tissues are classified into two examples of Antoni A and Antoni B. Antoni An areas have high cellularity and are made out of densely packed, spindle cells arranged in palisades. Then again, Antoni B regions have more myxoid structures and two nuclear palisades with nuclear arrangement in columns in an eosinophil zone, comprising of laces cytoplasmic, basal lamina, and collagen filaments in the middle of, which are called Verocay bodies [8]. Slight reticulin strands, fusiform cells and twisted cores are noticeable in the Antoni A area, comprising of an assortment of cells any evident borders. As a rule, Antoni A area is made out of various cells without evident borders [9, 10]. In the Antoni B area, tissues of Shawn cells are seen in an irregular arrangement [8].

Diagnosis of schwannoma will be by means of histopathological assessment of the lesion, in view of two typical tissue pattern (Antoni A and B) [11]. By demonstrating protein S-100 and nuclear fare signal, fusiform Schwann cells could be utilized to recognize the neural inception of various sores. Consequently, immunostaining investigation is basic to the precise analysis of schwannoma [3]. As per a few investigations, protein S-100 (a particular neural tissue marker) is reported to be immunohistochemically positive [11].

5. TREATMENT:

Surgical removal of the tumor, with preservation of the neighboring structures is the best treatment option in the management of schwannomas in literature [11]. And also if it is totallay excised, the chance of recurrences is impossible [3,9].

6. CONCLUTION:

In conclusion of the nature of the lesion as well as from the literature histopathological diagnosis and immunohistochemical analysis should be done if the differential diagnosis comprising schwannomas. The menthod of managing such lesions also play a vital role in prevention of recurrence.

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