Case report:-
A 55 yr old female presented with swelling in floor of mouth for last 8 months. Initially swelling was 1 to 2 cm in size and very slowly increased in size to reach a size of 3 cm after 8 months. The patient's medical and dental history was unremarkable. No symptoms suggesting paraesthesia was reported by patient. A physical examination of her floor of mouth revealed a smooth-surfaced, mobile, firm, and painless mass of 3x2 cm in diameter.

The mass was slightly movable. The neck examination was normal and no mass or swelling was observed in the neck. No regional lymph node were palpable.

An ultrasound examination of the neck revealed a well-circumscribed and hypoechoic lesion 3.53cm x 3.15cm in size in floor of mouth more on left side abutting lingual aspect of mandible with no bony erosion. (figure 1)

CT Scan shows 3.8cmx3.5cmx2.5 cm well defined enhancing mass in floor of mouth on left side with increased vascularity. And  hypoechoic lesion 3.53cm x 3.15cm in size in floor of mouth more on left side abutting lingual aspect of mandible with no bony erosion. (figure 1)

The differential diagnosis included sublingual gland tumor and neurogenic tumors. The dilemma faced by us was weather to go for pre operative biopsy or not, since large number of sublingual tumors are found malignant. But looking at clinical and radiological features we decided to go for excision without taking pre operative biopsy.

Our patient[figure 2] underwent surgical excision of the mass under general anesthesia via intra oral route. The mass was found adherent to sublingual salivary gland with nerve of origin uncertain. So mass along with sublingual salivary gland was removed by blunt dissection and sent for histopathological examination.

The post operative histopathological report was of neurilemmoma. Our patient had an uneventful postoperative recovery. Total excision resulted in complete resolution of symptoms with no recurrence or paraesthesia till date.

Discussion:-
Schwannoma, first described in 1908 by Verocay, commonly occurs between the age of 30 and 50 years old. Neurilemmoma/schwannoma is a benign tumor which arises from and consists solely of Schwann cells [1]. Between 25% to 45% of all neurilemmomas occur in the head and neck region, and 20% of these lesions occur in the intraoral area.
Intraoral neurilemmomas arise mainly from the tongue, followed by the palate, floor of mouth, buccal mucosa, gingiva, lips, and vestibular mucosa [6,7]. Neurilemmomas usually occur in the second or third decade of life, but can develop at any age. There is no definite sex predilection [8]. Masses are typically between 0.5 to 3 cm in size, rarely exceeding 5 cm [6,9].

Minor salivary gland tumors are rare, comprising 0.5% to 1% of all epithelial salivary gland tumors. Neurilemmomas in floor of mouth must be differentiated from minor salivary gland tumors. Since 80% to 90% of all minor salivary gland tumors show malignancy [10]. The imaging features of low-grade malignant salivary gland lesions resemble those of benign salivary gland tumors [11]. Therefore, when dealing with sublingual area masses, clinicians should keep in mind the possibility of malignancy and sublingual gland tumor, though definitive diagnosis depends on histopathologic examination. So the dilemma faced by the clinician is to go for preoperative biopsy or not.

Salivary gland tumors include a wide range of tumor types, which can be either benign or malignant. Approximately 85 percent arise in the parotid, the remaining originate in the submandibular, sublingual, and minor salivary glands, which are located throughout the submucosa of the mouth and upper aerodigestive tract [12]. Approximately 25 percent of parotid tumors are malignant, compared with 40 to 45 percent of submandibular gland tumors, 70 to 90 percent of sublingual gland tumors, and 50 to 75 percent of minor salivary gland tumors.

Schwannomas are usually solitary lesions; however, some are seen as multiple lesions as part of neurofibromatosis type [1]. Clinical evidence of the tumor usually does not present for a long time. The most common symptom is a slow-growing mass. Neurological symptoms and pain are rare. In schwannomas malignant transformation is very rare.

Diagnostic investigations include computed tomography (CT), magnetic resonance imaging (MRI), ultrasound scan and FNA. MRI is the best choice in detecting the extent of the tumor and correlates well with the operative findings. In T1-weighted MR images, the signals of the lesions are isointense to that of muscle, and hypointense to that of muscle on T2-weighted images [13]. Schwannomas have specific MRI properties, including specific signs (split-fat sign, fascicular sign, target sign) and signal patterns (that is, isointense T1 signal relative to skeletal muscle; increased and slightly heterogeneous T2 signal)

Neurilemmomas show well-defined boundaries and appear homogenous on CT images. When CT images show heterogeneous lesions, malignant changes in the neurogenic tumor may be suspected [14]. Biswas et al. have reported their 10 years of experience regarding extracranial head and neck schwannomas, and in their report, only 6 percent of patients could have been diagnosed preoperatively on the basis of clinical findings, CT and MRI scans, and FNAC [15].

Macroscopic evaluation of neurilemmoma shows two main patterns. The Antoni A pattern consists of densely-packed spindle cells. These cells are arranged in a typical, palisading figure surrounding acellular, eosinophic areas known as Verocay bodies. The Antoni B pattern, the loose hypocellular arrangement, lies beside the Antoni A pattern. Positive staining for the neural crest marker, S-100 protein, is an important characteristic for diagnosis [9,16,8]. The tumor in our patient showed characteristics of typical neurilemmoma.

The treatment of schwannomas is problematic. Because of resistance to radiotherapy, surgical excision is necessary for optimal treatment [7]. The current treatment modality for neurilemmoma is complete surgical excision [2]. The intraoral approach avoids extraoral scarring and is preferred. However, in some cases, intraoral excision may not be adequate for complete removal of the mass. Incomplete surgical removal of a neurilemmoma may result in recurrence [17]. Transhyoid excision can be a cosmetic alternative. The choice of surgical approach is based on tumor size and location [18]. Kang et al. reported that more than half of the surgically treated cases exhibited postoperative neural deficits that were primarily caused by iatrogenic injury to either the nerve of origin or adjacent neural ending.

The malignant potential of extracranial schwannomas and risk of recurrence after surgical resection is unclear, while in most studies investigating extracranial schwannomas, recurrence or malignant transformation of the tumor have not been reported [8]. During one-year follow-up of the present case, there was no evidence of recurrence and prognosis was excellent.

**Conclusion:** Schwannomas of the salivary gland is a particularly rare form of an extracranial neurogenic tumor. Our findings indicate good prognosis in an unusual case of a sublingual schwannoma in a 55-year-old female treated by surgical excision with no recurrence within 7 months of follow-up.

**REFERENCES:**

10. La’porte SJ, Juttla JK, Lingam RK. Imaging the floor of the mouth and the sublingual space. Radiographics. 2011;31:1215–1230.[PubMed]