

Our Experience with Submandibular Swellings

MS Emmanuel¹, M Sudeep², L. Sudarshan Reddy^{3,*}, Rohith Stephen⁴

¹Assistant Professor, ²Associate Professor, CAIMS, Karimnagar, ³Associate Professor, Govt. Medical College, Nizamabad, ⁴Senior Resident, DUIMS, Kolar, Karnataka

***Corresponding Author:**

Email: drlsudarshanreddy9@gmail.com

Abstract

The Submandibular Gland lies in Submandibular triangle(1). Submandibular swellings are not so common. They constitute 3% of all the neoplasms, 60% of which are benign(2). In this study the incidence, relationship of clinical presentation and pathological findings and the management of 8 patients admitted in Govt. ENT Hospital, Hyderabad over a period of 8 months from January to August 2010 is published.

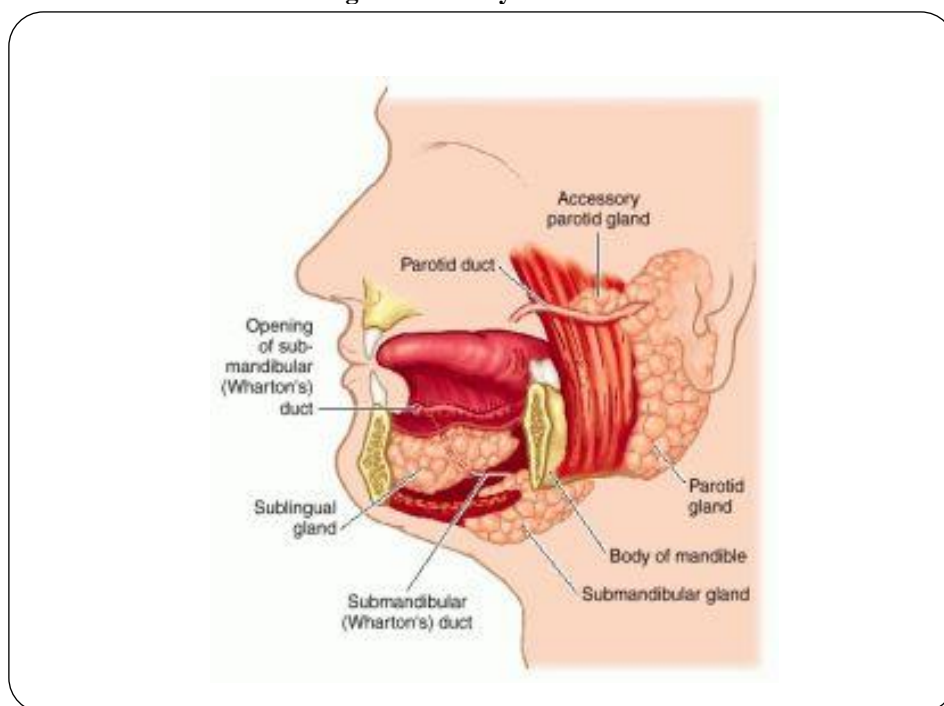
Keywords: Submandibular gland swelling, FNAC, Sialogram & Excision of submandibular swelling.

Introduction

The Submandibular Gland lies in the Submandibular triangle. Submandibular swellings are not so common. They constitute 3% of all neoplasms among those benign are 60%²⁻³. In this retrospective study the common complaint was swelling on the left side of neck in the submandibular region. The majority of swellings subside with medical management. Those swellings which are not subsiding with medical management (8 patients) were admitted, investigated and treated surgically by Submandibular skin crease

incision & the swellings were excised taking care not damaging the nerves¹ in the area. The HPE report of the specimen revealed the following, benign tumors – 4, abscesses – 2, calculus – 1 and low grade malignancy – 1 patient among 8 operated patients in a period of 8 months from Jan. to Aug. 2010. One patient developed palsy of Marginal mandibular branch of facial nerve & one more patient developed hypoglossal nerve palsy in the immediate post-operative period, but both patients recovered in the 12 months period of follow up.

Photo 1: Showing the Anatomy of Submandibular Gland

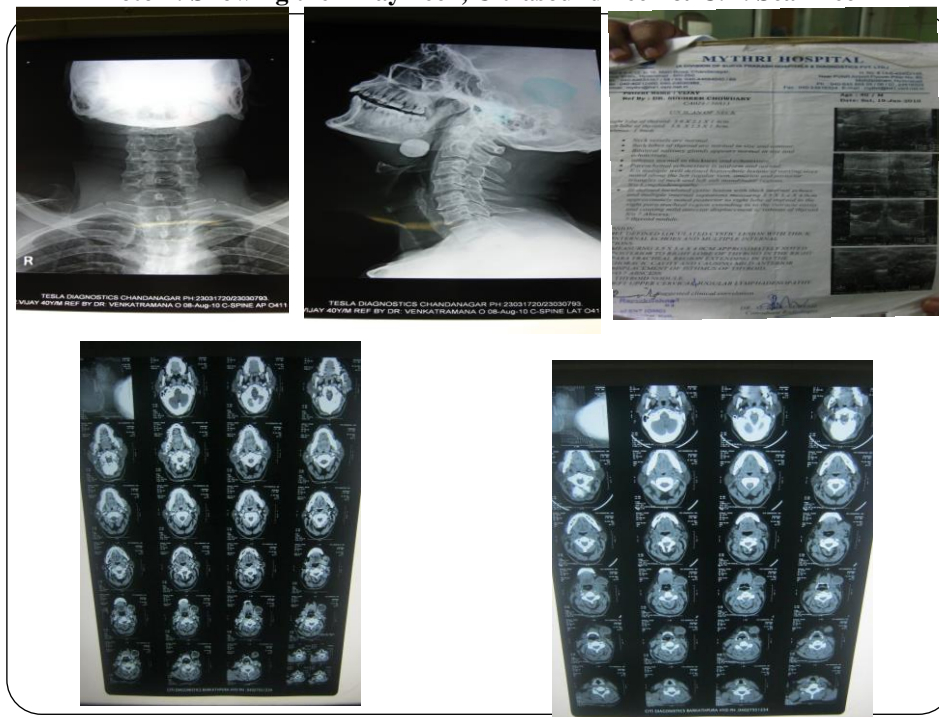


Materials & Methods

This retrospective study was conducted in Govt. ENT Hospital, Koti, Hyderabad from Jan. to Aug.2010 (8 months). The patients (8) presenting to the out-patient department with history of swelling in the submandibular area

which was not subsiding with medical treatment were admitted, investigated and managed surgically and the relationship between the clinical presentation & pathological findings were studied and followed up for a period of 12 months.

Photo 2: Showing the X ray neck, Ultrasound neck & C.T. Scan neck



Discussion

The period of study was 8 months from Jan. to Aug. 2010. 8 patients who presented with swelling left side of neck⁽⁷⁾ and pain left side of neck⁽¹⁾, the mean age was 26.5yrs, females were more⁽⁵⁾ commonly affected than males⁽³⁾. The duration of complaints ranged from 2 days to 3 yrs. The investigations performed to diagnose the nature of swelling included FNAC, Ultra sound Scan, X-ray, Sialogram & CT Scan depending on the clinical presentation. All cases required Surgical Excision by Submandibular skin crease incision below the mandible on the side of swelling, subplatismal to

preserve the marginal mandibular branch of facial nerve. The mass was excised and sent for HPE, which revealed benign tumors in 4, abscesses in 2, calculus in 1 & low grade malignancy in 1 patient out of 8 patients operated.

There were no major complications of the surgery except one patient developed palsy of marginal mandibular branch & one patient developed palsy of the hypoglossal nerve in the immediate post op.period, both recovered completely over a period of time in 12 months of follow up.

Table 1: Showing the Sl. No. Age, Sex, Symptoms, Duration, Complaints and Findings

S. No.	Age	Sex	Symptoms	Duration	Complaints	Findings
1	35	F	Pain left side of Neck	2 months	Dysphagia	Calculus felt intraorally
2	35	F	Swelling Left side of neck	2 years	Dysphagia Jain	SM swelling Hard
3	12	F	Swelling Left side of neck	3 months	Nil	SM swelling Cystic
4	2	M	Swelling Left side of neck	2 days	Pain	Fluctuant tender SM swelling
5	38	F	Swelling Left side of neck	1 year	Pain	Firm SM swelling
6	23	M	Swelling Left side of neck	7 months	Dysphagia	Soft SM swelling
7	27	F	Swelling Left side of	1 year	Nil	Soft SM swelling

			neck			
8	40	M	Swelling Left side of neck	3 years	Pain	Discharge from SM duct, Soft cystic

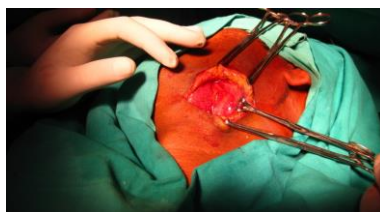
Table 2: Showing Sl. No. Radiology, Diagnosis, Operative Procedure & HPE

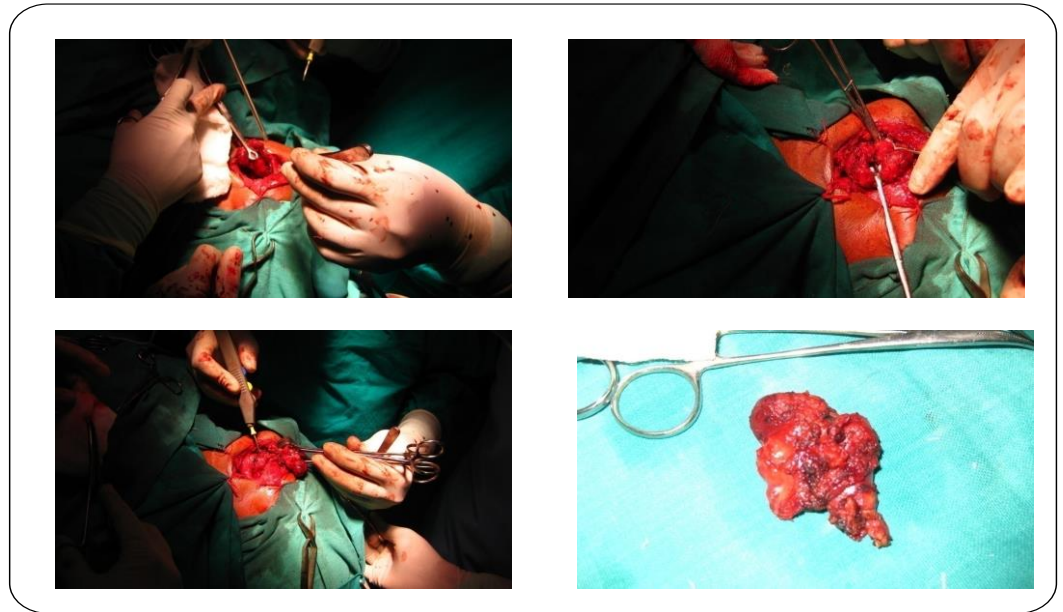
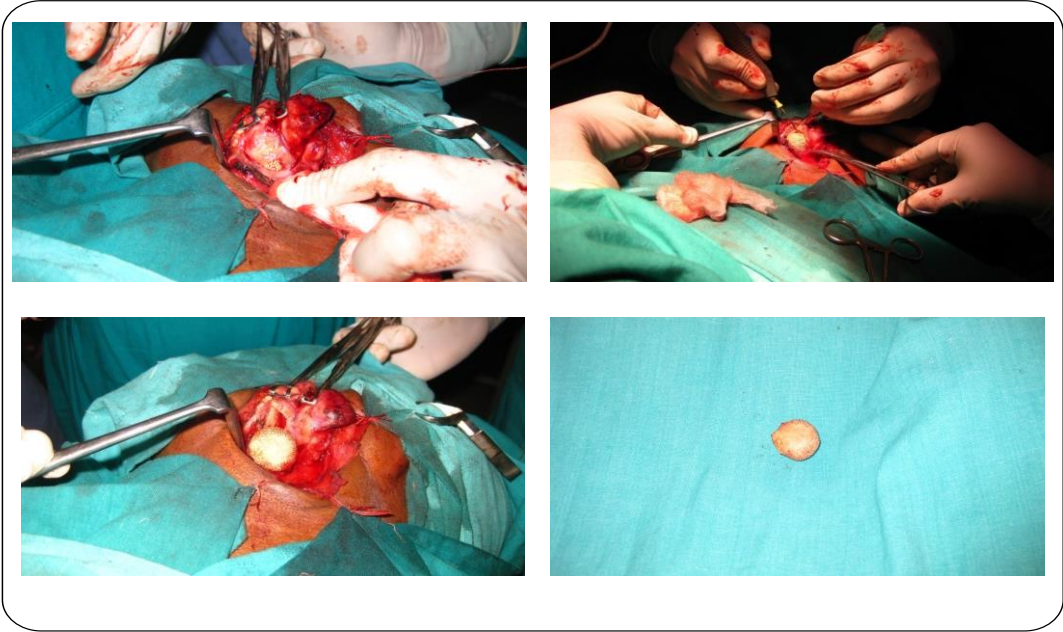
S. No.	Radiology	Diagnosis	Operative procedure	HPE
1	Sialogram-Calculus	Submandibular duct calculus	Excision	Not done
2	Not done	Pleomorphic adenoma	Excision	Pleomorphic adenoma
3	USG Neck-cystic structure	Submandibular retention cyst	Excision	Retention cyst
4	Not done	Submandibular abscess	I & D	Not done
5	Not done	Submandibular gland tumour-Low grade malignancy	Excision	Low grade malignancy
6	USG-Cystic	Submandibular lipoma	Excision	Lipoma
7	Not done	Submandibular lipoma	Excision	Lipoma
8	X-Ray Neck-submandibular calcification	Submandibular abscess	Excision	Pyogenic abscess

Table 3: Showing Sl. No. Post-Operative Period & Follow up

S. No.	Post-Operative Period	Follow up
1	Uneventful	12 months
2	Uneventful	-do-
3	Uneventful	-do-
4	Uneventful	-do-
5		-do-
6	Uneventful	-do-
7	Uneventful	-do-
8	Marginal mandibular nerve palsy & Hypoglossal nerve palsy	-do-

INTRAOPERATIVE





Photos 3: Showing the Intraoperative and Postoperative Period

Conclusions

The submandibular gland swellings are not so common. The swellings which did not subside with medical management were admitted, investigated & treated surgically by submandibular skin crease incision & the excised specimen HPE report showed majority as benign lesions. The nerves at risk are marginal mandibular branch of facial, hypoglossal & lingual⁴. There was no recurrence of the tumor in the 12 months follow up period. Only two patients developed temporary palsy of marginal mandibular & hypoglossal nerves which recovered completely in 12 months follow up. The perfect knowledge of anatomy and meticulous surgical technique is very essential⁵ for successful & uncomplicated surgical outcome of the submandibular gland swellings.

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References

1. Shah JP. Head and neck surgery. Barcelona: Mosby-Wolfe; 1996.
2. Witt RL, Maygarden SJ. Benign tumors, cyst, and tumor-like condition of the salivary glands. In: Witt RL, editor. Salivary gland diseases. Surgical and medical

management. New York: Thieme Medical Publishers; 2005. p. 114.

3. Upton DC, McNamar JP, Connor NP, Harari PM, Hartig GK. Parotidectomy: ten-year review of 237 cases at a single institution. *Otolaryngol Head Neck Surg.* 2007;136:788-92.
4. Preuss SF, Klusmann JP, Wittekindt C, Drebber U, Beutner D, Guntinas-Lichius O. Submandibular gland excision: 15 years of experience. *Oral Maxillofac Surg.* 2007;65:953-7.
5. Berini-Ayres L, Gay-Escoda C. Morbidity associated with removal of the submandibular gland. *J Craniomaxillofac Surg.* 1992;20:216-9.