

*Case Report***A Case Report On Oral Mucocele**Vinayak Kumar Mantu<sup>1</sup>, Ruchi Mitra<sup>2</sup><sup>1</sup>Senior Lecturer, Department of Oral and Maxillofacial Pathology, Darshan Dental College and Hospital, Loyara, Udaipur, Rajasthan.<sup>2</sup>Senior Resident, Department of Dentistry, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand.

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*Received: 03/07/2015**Revised: 21/07/2015**Accepted: 30/07/2015***ABSTRACT**

Mucoceleles are cavities filled in with mucus and lined by epithelium or covered by granulation tissue. Mucoceleles present as soft, smooth, painless swellings, ranging from deep blue to the normal color of the oral mucosa (pink). The deep blue color results from tissue cyanosis and vascular congestion associated with the stretched overlying tissue and the translucent character of the accumulated fluid beneath. It is a common lesion of the oral mucosa that results from an alteration of minor salivary glands due to mucous accumulation. Two types of mucocele can appear - extravasation and retention. Extravasation mucocele results from trauma to salivary glands duct and the consequent spillage into the soft tissues around this gland. Retention mucocele appears due to a decrease or absence of glandular secretion produced by blockage of the salivary gland ducts. This report presents a twelve year old male child patient having mucocele on lower lip. Treatment performed was surgical removal as he suffered difficulty in mastication & speech. Thus the clinical characteristics of mucocele, and the treatment plan to aid for decision-making in daily clinical practice is presented.

**Key words:** Cyst, mucocele, mucous retention cyst, salivary gland.

**INTRODUCTION**

Mucoceleles, one of the most common nonmalignant masses of the oral cavity, are probably the most common disease of the accessory (minor) salivary glands. [1] Mucoceleles affect both genders in all age groups, [1,2] with the peak age of incidence between 10 and 29 years, [1] this however, may be inaccurate because the asymptomatic nature of mucoceleles does not always lead patients into seeking medical treatment. [3] Numerous secreting minor salivary glands are scattered throughout the oral cavity. Each of these glands has its own

duct system, with its orifice positioned in the immediate overlying mucosa. Because these ducts are subject to trauma and consequent laceration, leakage can occur, with the secretion escaping into the surrounding sub mucosal tissue. Pools of mucus collect as a result of this extravasation phenomenon and a visible surface swelling develops-the mucocele. Coloration can also vary depending on the size of the lesion, proximity to the surface and upper tissue elasticity. [4] Lower lip is the most frequent site for mucocele. Tongue is the second most common location followed by the

buccal mucosa and palate; rarely found in the retromolar region and posterior dorsal area of tongue. [5]

As mucocele is a common lesion and affects the general population. For this reason we felt it would be interesting to deliberate the clinical characteristics of mucoceles, and their treatment to aid for decision-making in daily clinical practice. This article describes a case of oral mucocele occurring on the lower lip.

### CASE REPORT

A 12 year old male child named Kailash Nath of Badgaon, Udaipur was presented to the department of Oral Pathology, Darshan Dental college and Hospital with the complaint of pain in the lower inner aspect of lip since 15 days. Pain was spontaneous in onset, mild to moderate in intensity, throbbing in nature, aggravates on chewing food and gradually subsided. Patient also gives history of a small single swelling in the lower lip 2 months back. The swelling had subsided with watery discharge 2 weeks back. It recurred again 10 days back with another similar swelling in the lower lip. Both the swellings are gradually increasing in size. Patient gave history of extraction of 64 due to pain under L.A. Prenatal and natal history was normal. No history of trauma. Intraoral examination revealed Permanent dentition with teeth present 11,12,53,54,55,16 21,22,63,65,26 31,32,73,74,75,36,41,82,42,83,85,46. On soft tissue exam of lower lip on inspection 2 bilateral swelling present on the inner aspect lower lip. They were dome shaped, sessile 7mm and 5 mm in diameter, with well defined borders, whitish pink in color. On palpation the swellings are tense, soft in consistency, mobile and tender.

**PROVISIONAL DIAGNOSIS:** Mucocele (mucous extravasation cyst)

**DIFFERENTIAL DIAGNOSIS:** Mucous retention cyst, Cicatricial pemphigoid,

Herpes labialis, Chelitis Glandularis, Hemangioma, Lymphangioma, Low grade mucoepidermoid carcinoma

**INVESTIGATION:** Biopsy sample was obtained for Histopathological analysis. All routine hematological tests were advised.

**TREATMENT PLAN:** In Preventive Phase Diet counseling, Preparatory phase - Oral prophylaxis and Oral hygiene instructions, Restorative phase- GIC restoration with respect to 65. Corrective phase - excision of the mucocele. Maintenance Phase – Recall and maintenance.

**FINAL DIAGNOSIS:** MUCOCELE (mucous extra vasation)



Fig 1. Patient suffering from mucocele



Fig 2. Intraoral view of the lesions present on the lower lip

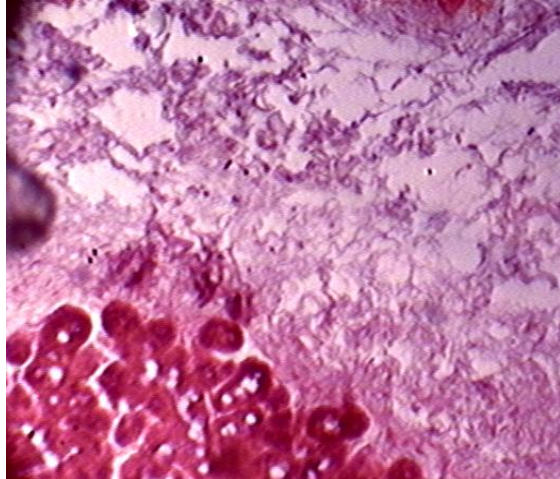


Fig 3. Under Scanner view: shows area of spilled mucin surrounded by minor salivary gland.

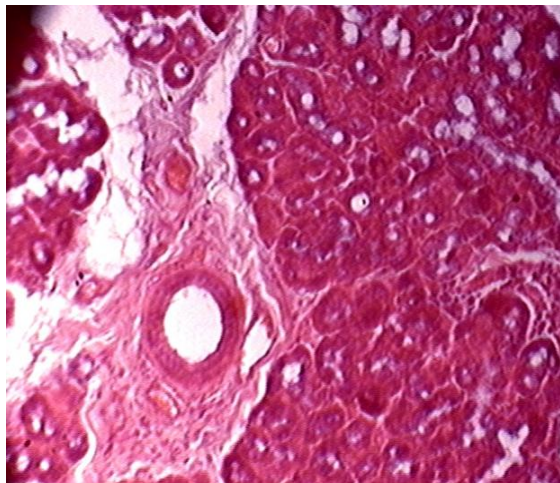


Fig 4. Low power view: shows lobulated salivary gland encircled with loose stroma, composed of collagen fibres, fibroblasts and vascular spaces

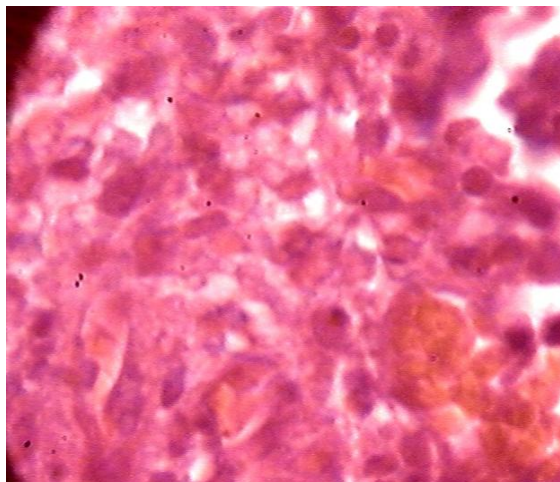


Fig 5. High power view: shows spilled mucin associated with granulation tissue containing foamy histiocytes (mucinophages)

## DISCUSSION

Mucocele is a common lesion of the oral mucosa that results from an alteration of minor salivary glands due to mucous accumulation. Mucocele involves mucin accumulation causing limited swelling. The lesions can be located directly under the mucosa (superficial mucocele), in the upper sub mucosa (classic mucocele), or in the lower corium (deep mucocele). Yamasoba et al <sup>[6]</sup> highlight two crucial etiological factors in mucoceles: traumatism and obstruction of salivary gland ducts. Bagán et al. <sup>[7]</sup> provide a study of 25 patients suffering from mucoceles of which 48% of the patients became aware of their lesion on seeing it although there were no symptoms. In another 48% of them lesions were found by a specialist by chance and only 4% patients had some unspecified feeling of discomfort but no real pain. In the present study patient complained of spontaneous pain. A study <sup>[8]</sup> of 312 patients showed 230 lesions on the lower lip (73.7%) which was similar to our present case. Tongue as the second most common location (15.4%). These locations are followed by the buccal mucosa and palate; and are rarely found in the retro molar region and posterior dorsal area of the tongue. Superficial mucoceles are typically located in the soft palate, the retro molar region, and the posterior buccal mucosa. (6% of all mucoceles).

A study <sup>[9]</sup> of 14 pediatric patients describes micro marsupialization techniques with 85% success. The aim of this technique is to drain the mucus and reduce the size of the lesion. This technique (after disinfection and anaesthesia) consists of passing thick silk thread (4.0) through the lesion at its largest diameter and then making a surgical knot. The suture is removed after 7-10 days, enough time for the mucocele to disappear. This technique has the advantage of being simple, relatively painless and with minimum trauma. The literature describes

different treatment options, including cryosurgery, <sup>[10]</sup> intra-lesional corticosteroid injection, <sup>[11]</sup> micro-marsupialization, <sup>[12]</sup> conventional surgical removal, <sup>[13]</sup> and laser ablation. <sup>[14]</sup> Surgical excision with removal of the involved accessory salivary gland has been suggested as the treatment. Baurmash <sup>[1]</sup> proposes complete resection of the mucocele through careful dissection, and ensuring that both the affected and neighbouring glands are removed, along with the pathological tissue, before primary closure of the wound. This minimizes the risk of relapse. Special care is required to avoid damaging other glands or ducts with the suture needle, since this may become a cause of recurrence.

Huang et al. in a study <sup>[15]</sup> of 82 patients suffering from mucoceles on the lower lip treated with CO2 laser observed that 2 lesions reappeared afterwards and one patient suffered temporary paraesthesia. In contrast, due to the more aggressive process, in the 38 cases removed by scalpel there were 9 postoperative complications – a temporary anesthesia in a 2.4 cm diameter mucocele located close to the mental nerve, 3 cases of postoperative hemorrhage and 5 patients with fibrous scar tissue after normal healing. Regarding overall recurrence rates, in one study, 70 mucoceles were surgically removed from the lower lip, and 2 lesions reappeared (2.8%).

## CONCLUSION

Mucocele are relatively common salivary gland cyst. Care must be taken to eliminate the causative agent along with the surgical excision of the lesion. The key point in avoiding recurrence is to eliminate the adjacent surrounding glandular acini and removing the lesion down to the muscle layer. Special care should be taken to avoid injury to the adjacent glands and ducts while placing sutures as this is also a cause for reappearance.

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