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## **MUCOCELE OF THE LOWER LIP IN A 70 Y.O. PATIENT WITH POORLY FITTED DENTURE – A CASE REPORT**

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Abstract:

The article presents a case of 70-year-old patient with mucocele of lower lip caused by poorly fitted denture.

Key words:

mucocele, retention cyst, denture

#### Introduction:

Mucocele is one of the diseases that may affect the small salivary glands, which line the oral cavity mucosa in large numbers. It usually locates on the lower lip, but can also appear on the upper lip, palate, tongue, buccal mucosa and the floor of the oral cavity. The cyst is filled with clear, yellow-brown, gelatinous fluid (1), whereas clinically, it manifests as small, fluctuant edema of the mucosa.

The most common cause of mucocele is trauma factor, especially the chronic irritation, for example with an orthodontic appliance or a denture. Also such parafunctions as repeated biting of the mucosa and lips, can contribute to damaging and obliteration of the small salivary glands' secretion ducts, mechanical blockage by the scars and circumscribed oral mucosa inflammations (2).

The usual type of such cysts is painless, and their diameter does not exceed 1 cm. The treatment of choice is excision of the cyst with obligatory histopathological verification. Some authors (3, 4) state that in case of a symphysis of the capsule with surroundings or a large size cyst, marsupialization should be performed, in which a portion of the anterior wall of the cyst

is excised, allowing the connection with the oral cavity. We are of the opinion that current progress in oral surgery, such as use of lasers and electrosurgical knives, caused the 2-stage surgery to be unnecessary. Retention cysts should be differentiated with haemangiomas, fibromas, lipomas and pleomorphic adenomas.

#### Case report.

The 72-year-old patient admitted to the Oral Surgery Department for a consultation of a lesion on the left side of the lower lip, which appeared 4 weeks before, without perceptible cause. The lesion was painless, with no additional symptoms, apart from the discomfort.

The extraoral examination showed no aberrations, whereas the intraoral examination revealed a bump on the oral mucosa, located in the spot reported by the patient, of 9 mm in diameter, slightly translucent, with no inflammation. During the palpation the spherical lesion was slightly elastic and soft, of homogenous and smooth surface, movable against the surface and oral mucosa.

The surrounding tissues showed no inflammation, and no other pathological changes have been noticed. It is important, that the patient received new acrylic dentures 6 months before and reported to his GDP the fact of discomfort due to different position of maxillary and mandibular teeth, than it was before. Multiple control visits and corrections were ineffective. The patient was biting the lower lip with maxillary teeth.

Basing on the medical history and clinical examination, the diagnosis of mucocele was made and the surgical treatment planned – the excision of the lesion with the use of a scalpel.

The patient was presented with the initial diagnosis and treatment plan. After obtaining the written consent, the surgery was carried out. In local anesthesia with 2% lidocaine, the mucosa was cut on the peak of the bump, which allowed exposing the widened duct of small salivary gland (fig. 1, 2). The lesion was prepared and excavated along with surrounding damaged salivary glands (fig. 3, 4). The material was sent for histopathological examination, which confirmed the initial diagnosis. The wound was sutured with Safil 4.0. After 7 days the complete healing was achieved, the sutures removed and the patient referred to a prosthodontis.

#### Discussion.

Mucocele are the cysts of small salivary glands, caused by blockage of the duct on the oral mucosa, these cysts do not have the epithelial lining, but only a connective tissue capsule. They are most commonly found in patients of 20-30 years of age, but also in children and seniors (5). There is a slight female predilection. In 80% of cases, they are located on the lower lip.

Histologically, there are 2 types of mucocele. The mucous retention cyst develops as a result of obstruction of the duct (6), lined with ductal epithelium. Such cysts are usually found in people above 50<sup>th</sup> year of age, in small salivary glands, virtually never in lower lip, and most often in the floor of the mouth and tongue. Kaczmarzyk qualifies such type of cysts as retention cysts.

The extravasation phenomena are called outside of the duct, in which no epithelial lining can be found, and are encapsulated with granulation tissue, which qualifies it as a so-called cyst. It develops due to traumatic cut of the duct, which in turn causes the mucous to accumulate in the connective tissue (2). Kaczmarzyk qualifies this type of cyst as extravasation cyst, usually located in the lower lip (80%).

The treatment of mucocele is surgical and consists in complete enucleation along with surrounding degenerated glands. Presently there is no point in 2-stage treatment, especially as they are rarely above 10mm in diameter. Small surgical procedures in soft tissues, also such as enucleation of the mucocele, can be performed with traditional method, and also with the use of laser or electrical knife. Such procedures are performed in our department (2).

Diagnosis of mucocele is usually easy. Clinical examination is sufficient, when it is located close to the surface, just below the mucosa and in typical location. Finding a soft, elastic and painless bump of small size and slow growth, followed by thorough medical interview, concerning the cause of lesion development, predisposes for initial diagnosis of mucocele.

The interview shows trauma as a main cause, in vast majority of cases. It can be a single incident of lip biting or face trauma. Mucocele can also develop as a result of chronic trauma, such as habitual biting of lips and buccal mucosa, and also irritating elements of orthodontic appliance (7). Chronic irritation of lower lip mucosa by poorly fitted denture caused the mucocele in the case described by us.

Even though the diagnosis of mucocele and the surgery itself is not very complicated, one must always send the material for histopathological examination. The literature shows

cases of finding fibrosarcoma inside the mucocele or coexistence of mucocele with traumatic neuroma (8).

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Fig. 1. The 10mm cut exposing the retention cyst of lower lip.







Fig.2. Further preparation of the cyst.

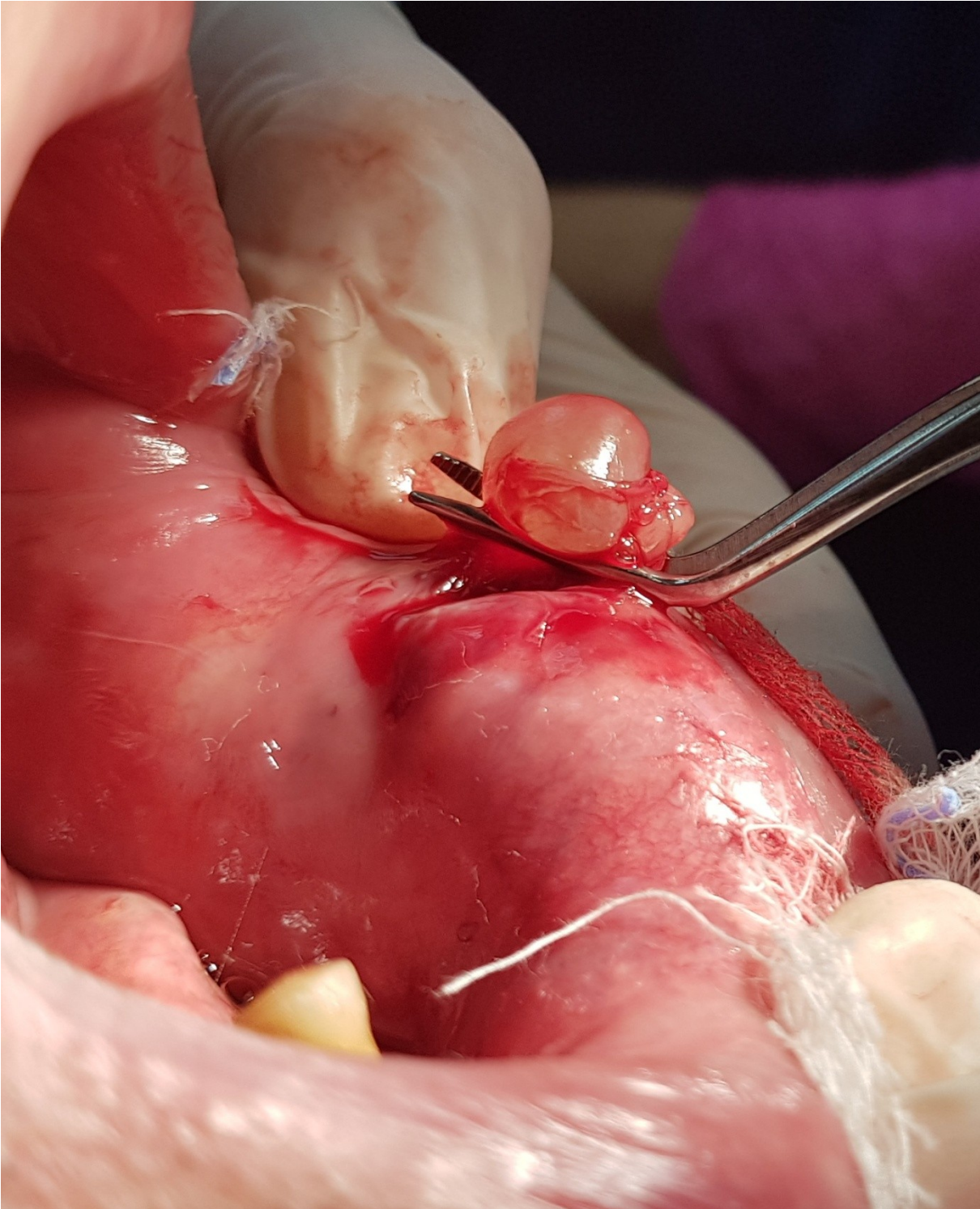


Fig. 3. The enucleated cyst along with damaged duct.



Fig. 4. The wound sutured with Safil 4.0.