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EXCISION OF MUCOCELE WITH GOLDMAN-FOX SOFT TISSUE NIPPER

EXCISÃO DE MUCOCELE COM TESOURA DE TECIDOS GOLDMAN-FOX

ESCISIÓN DE MUCOCELO CON PINZA DE TEJIDO BLANDO GOLDMAN-FOX

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ABSTRACT
Purpose: This report aims to describe a technique for surgical removal of lip mucoceles with Goldman-Fox soft tissue nipper and analysis the clinical aspects. Materials and Methods: Mucocele of the lower lip was completely removed with a Goldman-Fox soft tissue nipper. The lesion was sent to histopathological analysis, which confirmed the clinical diagnosis of mucocele. Results: After excision, there was very minimal *bleeding and* regular margins were obtained, which contributed for suture and soft repair. The lesion was completely removed with no extravasations of mucous. There was no recurrence of the lesion after 2-years follow-up. Conclusions: The excision with Goldman-Fox soft tissue nipper to treat the mucocele of the lower lip was effective and had not complications, with shorter operative time, which is especially good for children and for less cooperative patients. Besides, this technique allowed the histopathological analysis to confirm the diagnosis.

KEYWORDS: Mucocele. Excision. Lower lip. Goldman-Fox Soft Tissue Nipper.

RESUMO
Objetivo: Este relato teve como objetivo descrever uma técnica para remoção cirúrgica de mucocele labial com pinça de Goldman-Fox para tecidos moles e analisar os aspectos clínicos. Materiais e Métodos: A mucocele do lábio inferior foi totalmente removida com pinça de tecido mole Goldman-Fox. A lesão foi encaminhada para análise histopatológica, que confirmou o diagnóstico clínico de mucocele. Resultados: Após a excisão, houve sangramento mínimo e margens regulares foram obtidas, o que contribuiu para sutura e reparação suave. A lesão foi totalmente removida sem extravasamento de mucosa. Não houve recidiva da lesão após 2 anos de proservação. Conclusões: A excisão com pinça de Goldman-Fox para tratar a mucocele do lábio inferior foi eficaz e sem complicações, com menor tempo operatório, o que é especialmente bom para crianças e para pacientes menos cooperativos. Além disso, esta técnica permitiu a análise histopatológica para confirmar o diagnóstico.

PALAVRAS-CHAVE: Mucocele. Excisão. Lábio inferior. Pinça de tecidos moles Goldman-Fox.

RESUMEN
Objetivo: Este informe tiene como objetivo describir una técnica para la extracción quirúrgica de mucoceles labiales con fórceps de Goldman-Fox para tejidos blandos y analizar los aspectos clínicos. Materiales y Métodos: El mucocele del labio inferior se eliminó por completo con pinzas para tejidos blandos Goldman-Fox. Se envió la lesión para análisis histopatológico, que confirmó el diagnóstico clínico de mucocele. Resultados: Después de la extirpación, hubo sangrado mínimo y se obtuvieron márgenes regulares, lo que contribuyó a la sutura y reparación suave. La lesión se eliminó por completo sin extravasación de la mucosa. No hubo recurrencia de la lesión después de 2

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RECIMA21 - REVISTA CIENTÍFICA MULTIDISCIPLINAR
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años de seguimiento. Conclusiones: La escisión con fórceps de Goldman-Fox para el tratamiento del mucocele del labio inferior fue eficaz y sin complicaciones, con un tiempo operatorio más corto, lo que es especialmente bueno para los niños y para los pacientes menos cooperativos. Además, esta técnica permitió el análisis histopatológico para confirmar el diagnóstico.

PALABRAS CLAVE: Mucocele. Excisión. Labio inferior. Pinzas para tejidos blandos de Goldman-Fox.

INTRODUCTION

Mucoceles are common benign lesions of the oral mucosa which mechanisms for mucous cavity development are extravasation or retention[1]. Extravasation is the leakage of fluid from the salivary ducts into the surrounding tissue and is the primary cause of mucocele formation with physical trauma as the initiating factor[1]. Retention phenomenon occurs as a result of a narrowed ductal opening that cannot adequately accommodate the exit of saliva produced, leading to ductal dilation and surface swelling which results from rupture of a salivary gland duct[1]. The lesion mainly affects young people, and no gender difference was observed[1-3]. Regarding the location of the mucoceles, the lower lip is the most prevalent[2-4] because it is the area most often susceptible to trauma[5]. Improper treatment can result in a recurrence of the lesion[4].

Several treatments have been proposed in the literature, such as excision of the lesion associated or not with removal of the gland involved, intralesional injection therapy with OK-432, carbon dioxide laser, cryosurgery and micro-marsupialization[5-10] Non surgical techniques for the treatment of mucocele has been widely used and reported as effective techniques, with less discomfort and recommended primarily for non-cooperative patients[5,6,8]. In these cases where there is no surgical removal of the lesion, the histopathological examination may not be executed and, therefore, the treatment is performed without confirmation of definitive diagnosis. Histopathological analysis is critical, as some malignant lesions are clinically similar to oral mucoceles[11-13].

The aim of this report was to describe a technique for surgical removal of lip mucoceles with Goldman-Fox soft tissue nipper, describing the clinical and histopathological aspects.

CASE REPORT

A 14-year-old female patient was referred with lower lip lesion associated with periodically swelling during the last three months. The patient has a history of biting the lip frequently. Clinical examination revealed the presence of an exofitic lesion in the lower lip with 6mm of diameter, sessile, soft consistency, asymptomatic and color of adjacent normal mucosa (Figure 1). All the other structures were normal at the oral clinical exam.

RECIMA21 - REVISTA CIENTÍFICA MULTIDISCIPLINAR
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Figure 1. Exofitic lesion on the lower lip mucosa with approximately 6 mm of diameter.

SURGICAL TECHNIQUE AND POSTOPERATIVE CARE

A*queous solution of Chlorhexidine 0,12% was used to disinfect and perform surgical antisepsis.* Local anesthesia was achieved by mental nerve block using 2% Lidocain with epinephrine (1:100.000)**.** The Goldman-Fox soft tissue nipper (*Hu-Friedy*) was open positioned around the lesion on its basis (Figure 2). It was necessary just a movement for excision (Figure 3) and the lesion was completely removed without extravasations of mucus (Figure 4).

Figure 2. Placement of Goldman-Fox Soft tissue nipper on the basis of mucosa around the lesion.

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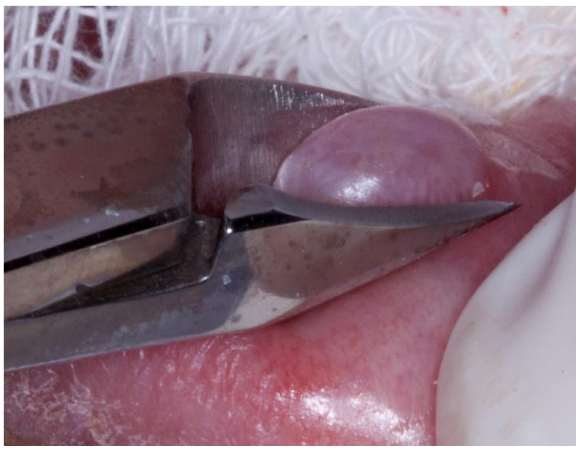

Figure 3. Move with single cut.

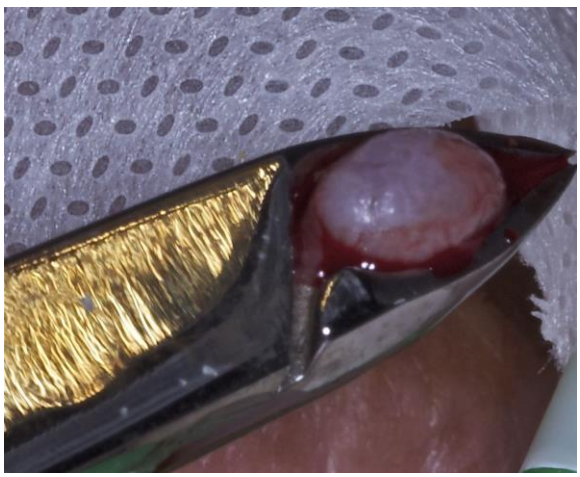

Figure 4. Excision performed on the basis of lesion with the closure of the Goldman-Fox soft tissue nipper.

Light bleeding from *the surgical wound* occurred after the excision and regular margins were observed (Figure 5). This characteristic permits the proper alignment of the *wound* edges and *contributes* to their final suture. The lesion was fixed in *10*% buffered *formalin.*

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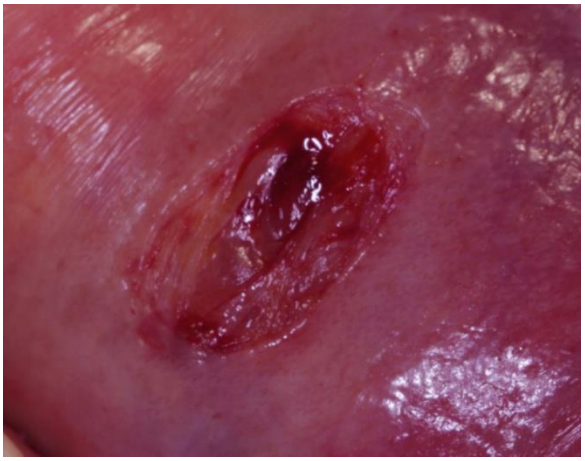

Figure 5. Suture performed.

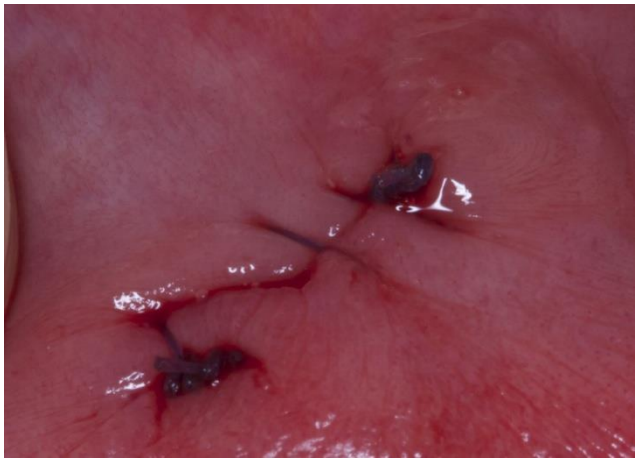

Figure 6. The lesion was removed entirely: edges of the ellipse-shaped surgical wound, which occurred after use of cutting instrument.

The patient was examined at 1 week after surgery and there were no complaints of swelling, bleeding or pain.

DISCUSSION

Mucocele is a benign lesion of salivary gland, and the primary treatment modality consists basically in surgical removal and can be performed with various methods[7-10]. In the literature, different treatments are reported according to the size of the lesion[5-10] and small, superficial lesions may have spontaneous resolution without necessity of treatment [3, 14]. Cryosurgery is an alternative method of treatment which aims for minimal injury to adjacent structures [15] but is associated with a significant number of recurrences that require reoperation with classic or alternative surgical procedures[8] and the technique alone do not permit histopathological analysis.

RECIMA21 - REVISTA CIENTÍFICA MULTIDISCIPLINAR
ISSN 2675-6218

The treatment with soft tissue laser offers an alternative treatment with simple mucocele ablation and short surgical time. The wound remains without suture and a little discomfort was reported[6, 16]. The laser does not remove but only vaporizes the lesion and perilesional tissue which does not make possible the histopatological analysis of the lesion after the procedure. Some authors have reported an incisional biopsy before the use of carbon dioxide laser[6], therefore the conventional technique with bistoury cannot be waived. Besides, the equipment is expensive and adequate measures must be taken for both the patient and the staff's protection.[6]

In relation to micro-dissection technique, microsurgical instruments contribute the surgeon to dissect the mucocele[1], however this procedure spends relative high time. Care should be taken to avoid injury to the other glands and ducts with the suture needle because surgical injury to any of the marginal glands is another cause of recurrence[1].

The recently introduced intralesional injection therapy with OK-432 was reported,[5] however it seems to occur high recurrence of mucocele. Besides, the technique does not permit the histopathological analysis. This is an important point to consider since adenocarcinomas mimicking clinical aspects of mucocele have been reported[11-13, 17, 18].

In our case report, the used of surgical excision with Goldman-Fox soft tissue nipper was used to treat a mucocele of 6mm. This technique is recommended to treat primarily small to medium-sized lesions. Large mucoceles (size > 10mm) are best treated with an unroofing procedure (marsupialization), because excision or dissection would be problematic and risk vital structures such as the labial branch of the mental nerve[1]. A clinicopathologic review of 1,824 cases of mucoceles reported that the maximum diameter at mean was 8mm[4]; therefore, the Goldman-Fox soft tissue nipper may be indicated for lesions until this size because the cutting blade diameter has 8mm. For excision of a minor injury, simply position the pliers so closer to its end, delimiting it for removal. The advantages include a bloodless operating field, precise incision, easy surgery, decreased postoperative swelling, low cost and minimized scar tissue. No particular complications in the postoperative period and no hemorrhagic episodes occurred.

It has been suggested to observe the lesion for 5 months before proceeding with surgical treatment because this is an adequate time for spontaneous resolution of the lesion[10]. A 2 year follow-up was done and no recurrence was verified.

CONCLUSION

This is the first case reporting the excision with Goldman-Fox soft tissue nipper to treat mucocele of the lower lip which was effective and had not complications. The operative time is shorter than with the conventional excisional methods, which is especially good for children and for less cooperative patients. Besides, this technique allowed the histopathological analysis to confirm the diagnosis.

RECIMA21 - REVISTA CIENTÍFICA MULTIDISCIPLINAR
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