

Endoscopic assisted transoral removal for proximal submandibular stones

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Introduction

Sialolithiasis is the most common non-neoplastic salivary gland disorder, accounting for 1.2% of the European population. More than 80% of salivary stones are located in the submandibular duct. Hilar stones are usually removed by a transcervical submandibular sialadenectomy. Endoscopic assisted transoral removal for proximal duct or hilar stones seems to be an equal miniminvasive gland-preserving alternative. The aim of the study was to determine position of endoscopic assisted transoral removal in a treatment of submandibular sialolithiasis.

Material and methods

Twenty patients (8 women, 12 men) with proximal submandibular duct or hilar stones were included in the study from 2010 till 2012. They underwent endoscopic assisted transoral removal of the stone after clinical examination and ultrasound of the neck. The surgical procedure was performed under local anaesthesia. The postsurgical complications were observed and the recurrence of symptoms was considered as a treatment failure. These patients underwent sialadenectomy of the affected gland.

Fig. 1 Anatomy of the floor of the oral cavity

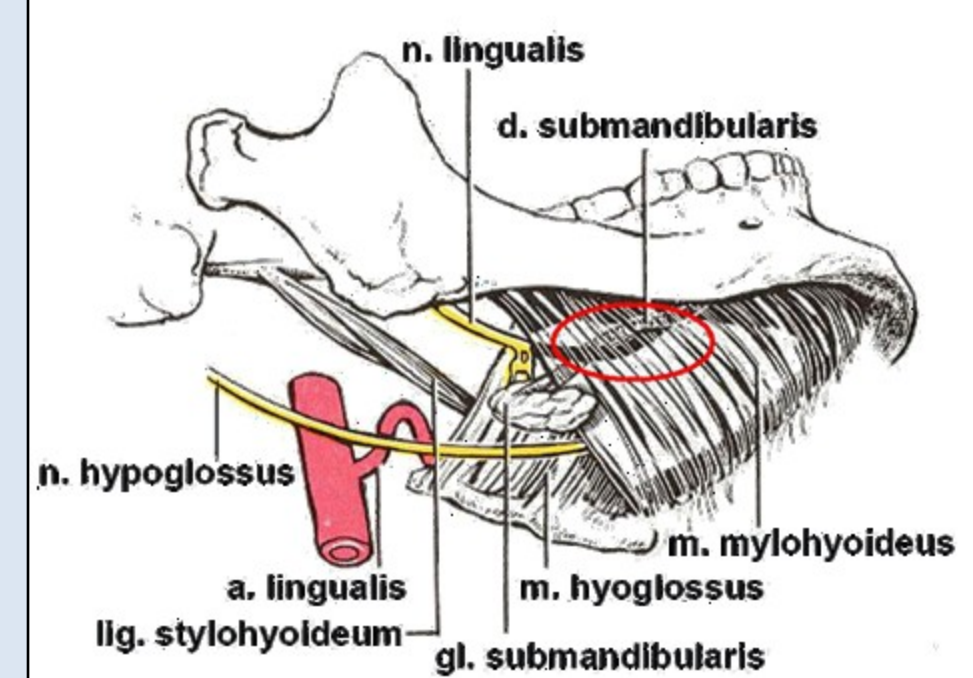
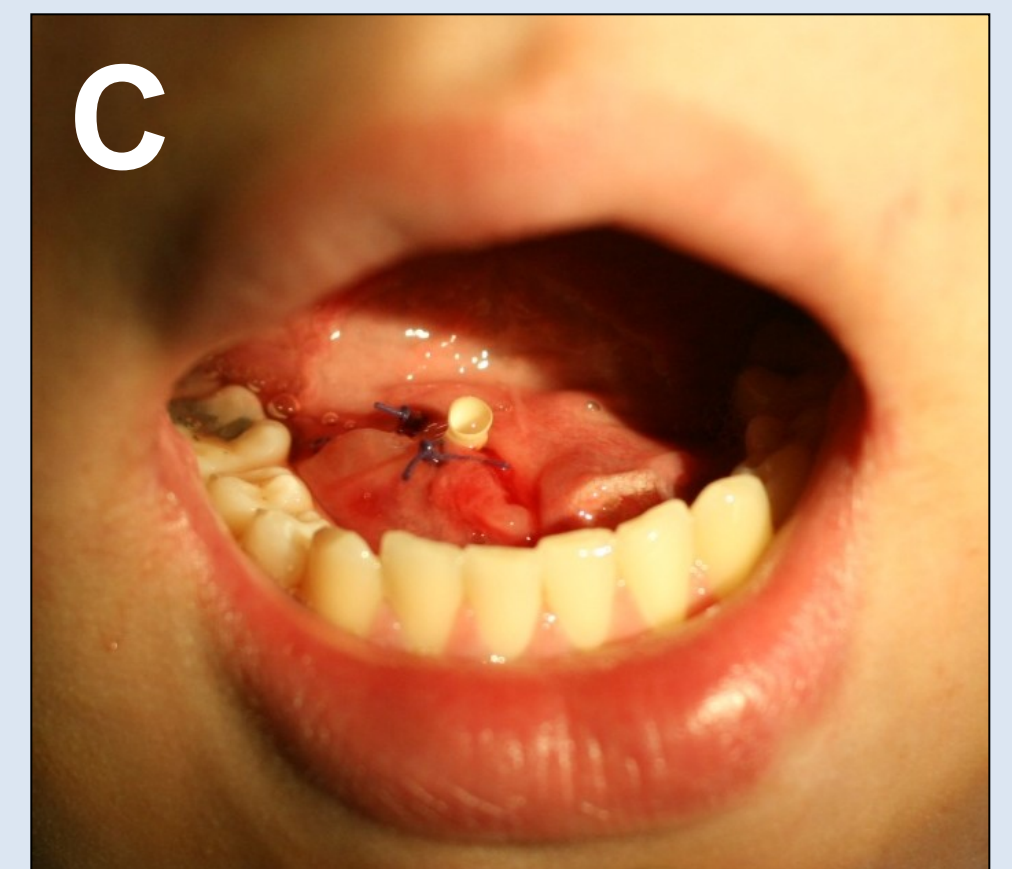
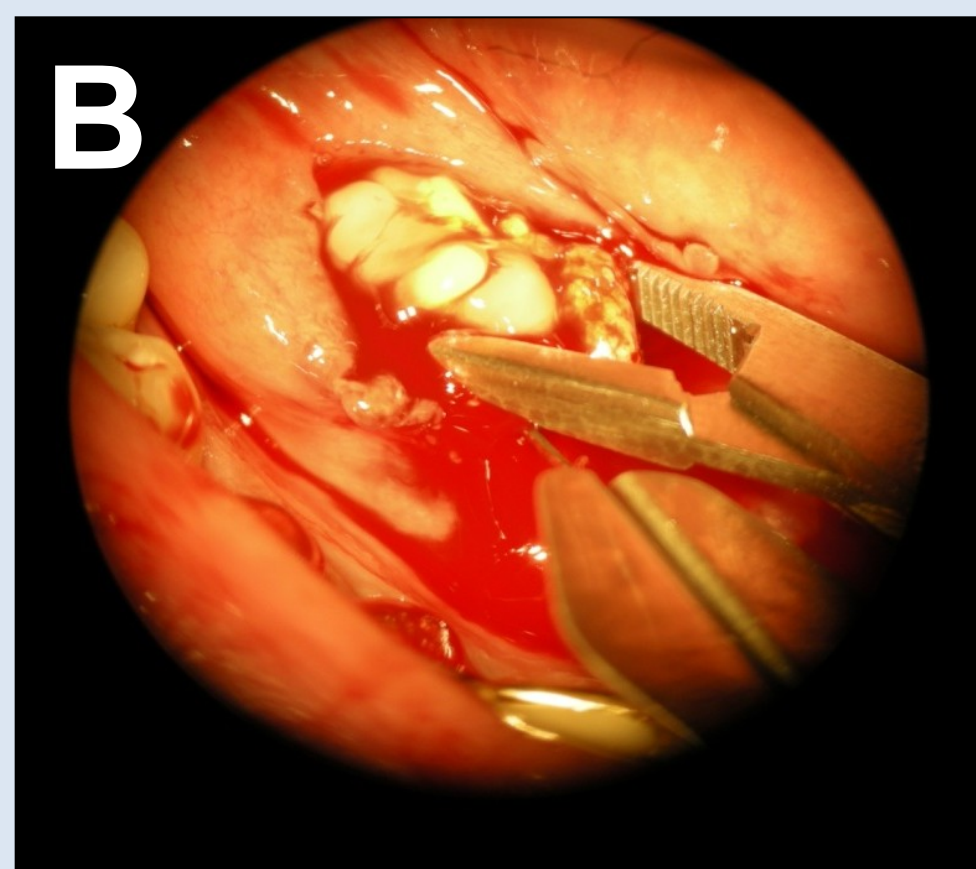
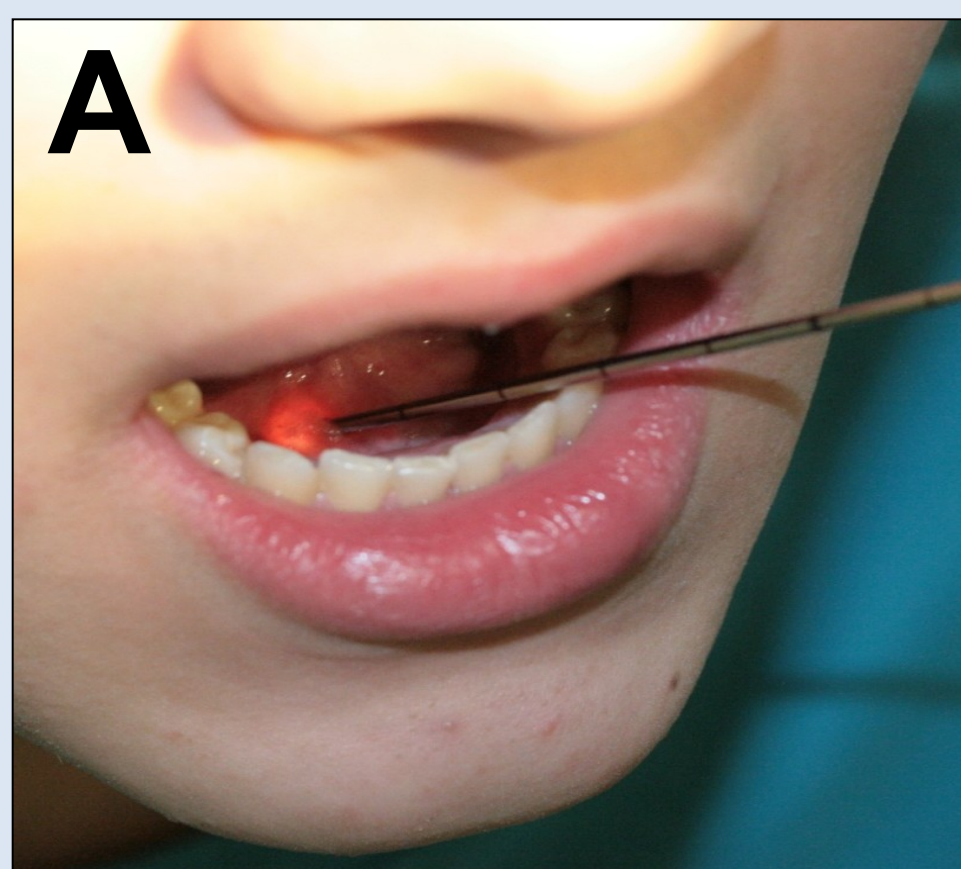
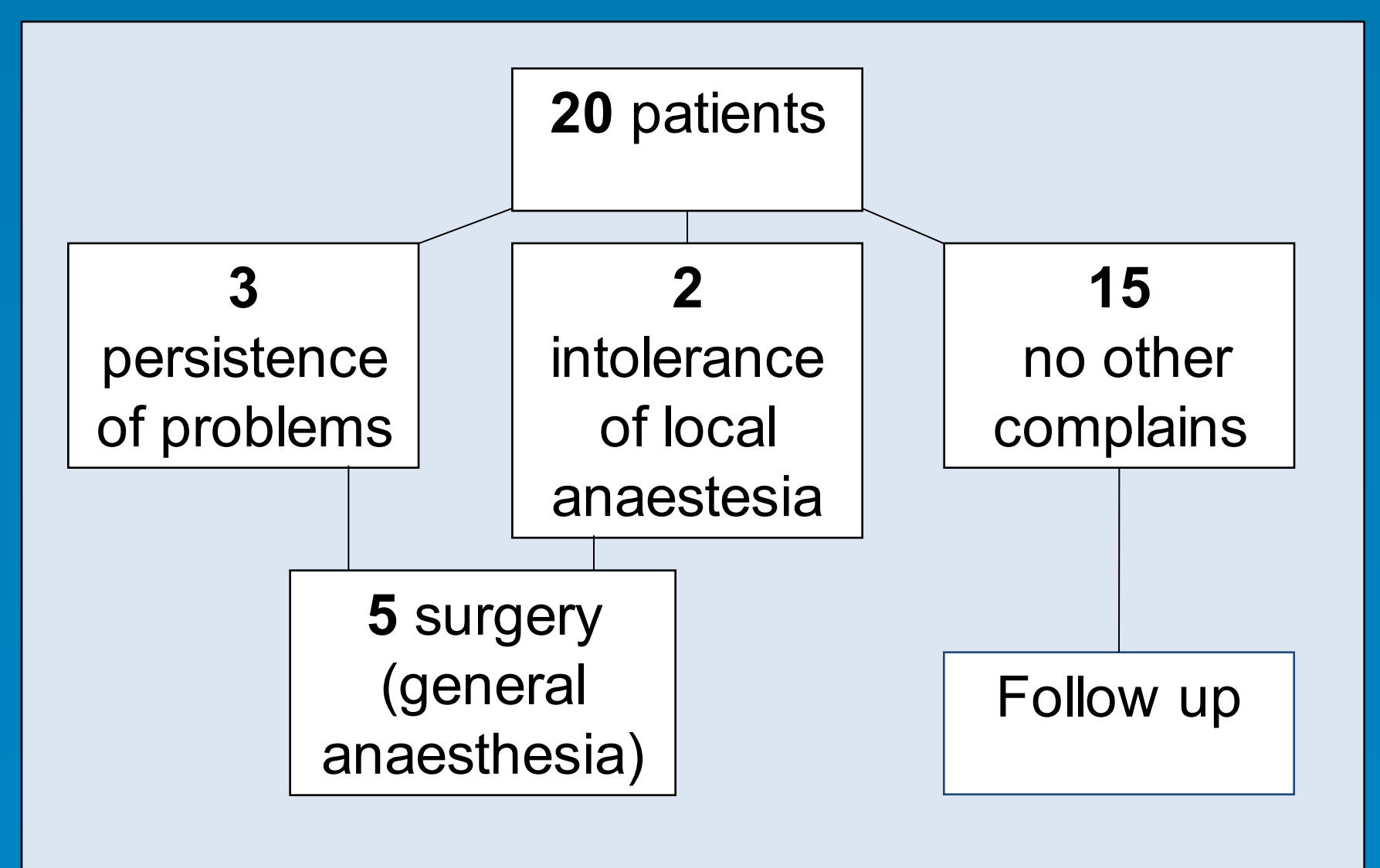


Fig. 2 Endoscopic assisted transoral removal of the sialolith (A – diagnostic sialendoscopy of the affected gland, B – transoral removal of the stone, C – stent in the duct).



Results

The endoscopic assisted transoral removal of the proximal submandibular stones under local anaesthesia was performed in 20 patients. In 15 patients treatment was successful. These patients haven't had any other problems (recurrent salivary gland swelling). The treatment failed in 5 patients overall. The surgery under local anaesthesia wasn't tolerated from 2 patients. In other 3 patients persisted problems after transoral removal. The postsurgical complications were described in 2 patients (local soft tissue infection).



Conclusion

Endoscopic assisted transoral removal of salivary gland stones under local anaesthesia is a method of choice in the management of proximal submandibular stones. This miniminvasive technique features a low morbidity and leads to a complete recovery of the glandular function contrary to the submandibular sialadenectomy.

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