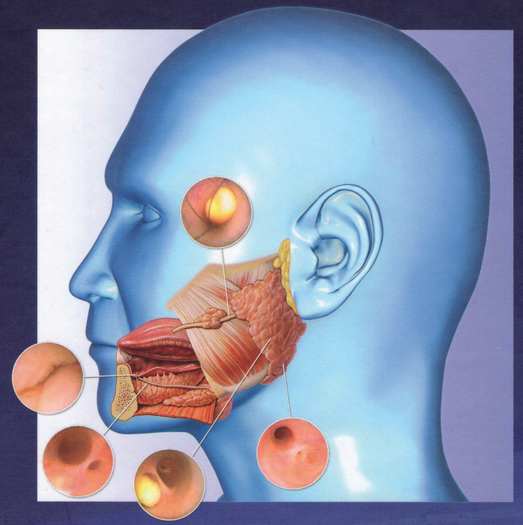
ISGS INTERNATIONAL SALIVARY GLAND SOCIETY

ESTC EUROPEAN SIALENDOSCOPY TRAINING CENTRE

SIALENDOSCOPY

The Hands-On Book



Edited by

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126. A symptomatic Wharton's duct sialolith in a patient with submandibular gland resection: a case report

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Case description

A 73-year-old woman had removal of some stones with a right-sided intraoral incision approximately 25 years previously. Five years ago, she had a right submandibular sialadenctomy *(Figure 1)* with a diagnosis of sialolithiasis. After being asymptomatic for three years, she developed a feeling of tension in the mouth and a calculus palpable with the tip of her tongue. During four weeks, this area was painful and she was given two courses of oral antibiotics; the pain settled. Ultrasonography revealed a stone of 9 mm in diameter and a distal dilated Wharton's duct remnant/stump without any submandibular gland.

Sialendoscopy under a general anesthesia revealed a stone (L2b) at the end/proximal part of the remnant Wharton's duct *(Figure 2)*, at a distance of 2 cm from the papilla. Considering her age and anticipated morbidity, we decided to fragment the stone in the remnant duct using contact pneumatic lithotripsy. Under sialendoscopic guidance, using a semi-flexible miniature straight forward telescope with a designed probe of 0.6 mm in diameter and compatible with a working channel of the 1.6 mm OD (Erlangen type) sialendoscope, the stone was fragmented with 88 single shots at 3.5 atmosphere. The fragments *(Figure 3)* were completely and atraumatically removed with a foreign body forceps and irrigation.

Discussion

Intracorporeal shockwave lithotripsy (widely used by urologists) works on a principle similar to that of a pneumatic hammer. The probe moves with intermittent pulse application in a frequency of 10-15 Hz at high pressure and a shot rate usually varying between 4 to 16. Most of the stones develop fracture lines or are fragmented after the initial 4 shots. There is very transient bleeding that might temporarily stall endoscopy. While there is the theoretical risk of duct perforation, no significant adverse effects have been noted in our series.

Take-home message

- During salivary gland removal, its duct should be also removed.
- Currently, the primary treatment option in sialolithiasis is interventional sialendoscopy.
- Pneumatic lithotripsy is a minimally-invasive, reliable and economic option for fragmenting salivary stones.

Figure 1

Surgical scar and depression in the right submandibular area.

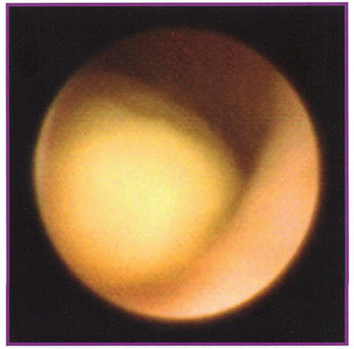

Figure 2

A stone at the end of the right Wharton's duct stump.

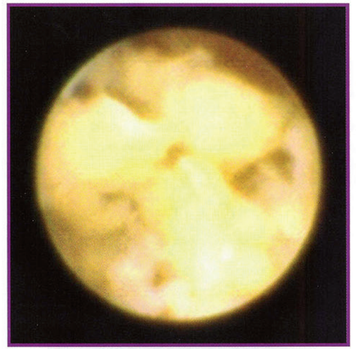

Figure 3

Stone pieces in the remnant Wharton's stump after pneumatic lithotripsy.