



PATIENT SPOTLIGHT

Parotid Stone Treated With Sialoendoscopy



Fig 1a - Sialoscope illuminating the gland and stone



Fig 1b - CT neck showing a large parotid stone

A 63 year-old man presents with a prolonged history of left parotid swelling and discomfort.

His CT scan (Figure 1b) revealed a large stone within the parotid gland. After discussion with the patient, a combined endoscopic/open gland sparing approach to the parotid stone was agreed upon and the patient was taken to surgery.

INCIDENCE AND PATHOGENESIS

Salivary stones are the most common cause of inflammatory sialoadenitis of the major salivary glands, occurring in about 1.2% of the population. Only about 10% of major salivary sialoliths occur in the parotid, with the vast majority appearing in the submandibular glands. The precise mechanism of stone formation is unknown, but the chemical composition or mucin content of saliva, as well as anatomic shape and angulation of the duct, may play important roles.

CLINICAL SIGNS

Typical presentation is that of obstruction, with pain and swelling in the involved gland, often exacerbated by eating. Bacterial superinfection may result in fever, increased swelling, and erythema of the overlying skin.



ENT and Allergy
Associates, LLP

This patient was
referred by a tri-state
ENTA physician.

Our shared EHR
facilitates a seamless
referral process and
transfer of medical
records with the push of
a button.

To refer a patient:

Call us direct at
Physician Access Services
(212) 241-4983

Thank you for your
referrals.

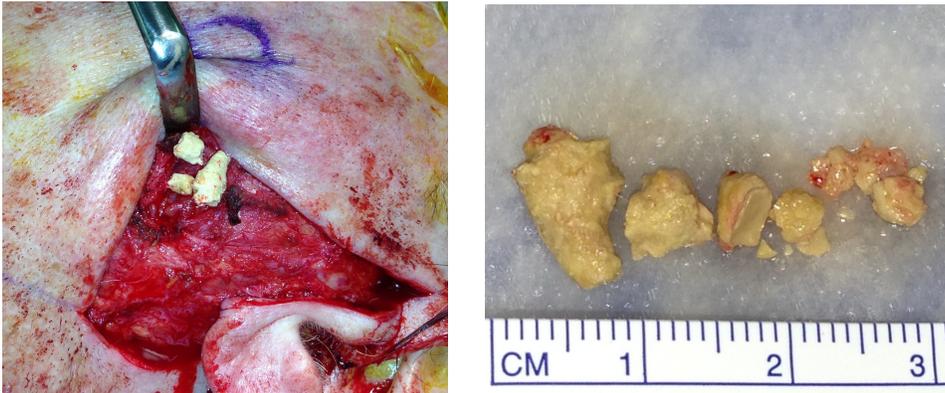


Figure 2a and 2b - Intra-operative photos of the stone at the gland and after removal

TREATMENT

In the past decade, sialendoscopy has dramatically changed the management of sialolithiasis, allowing a gland-preserving therapeutic approach in many cases. Once an obstruction has been removed, the function and morphology of the gland has been noted to return to normal. Often, salivary stones may be removed using an endoscopic basket. Though laser fragmentation of larger stones may be used to increase endoscopic success, this technique also risks injury to the duct wall and resultant stenosis.

Because of the tendency of parotid stones to be smaller and less adherent than submandibular stones, retrieval by sialendoscopy is more likely to be successful in the parotid. However, cases involving massive parotid stones may require a more invasive approach. Despite the very large size of some these stones, many remain non-palpable due to the deep location of the duct, as well as overlying gland inflammation and edema. Traditional parotidectomy approach remains an option, but the availability of sialendoscopy presents another alternative, that of a combined endoscopic/open, gland-sparing approach.

In the combined approach to a parotid stone, Stenson's duct is cannulated intraorally with serial dilators, and an endoscope is inserted and used to visualize the stone. Using transillumination, the specific location of the stone is elucidated. A limited incision and skin flap is then created, and blunt dissection carried out over the point of transillumination to isolate the duct and stone. Once the stone is removed through a ductotomy, the duct is repaired with small absorbable suture, and a stent placed to prevent stricture or leaking from the duct. Surgical removal of parotid tissue is unnecessary using this approach. The patient was discharged home from the recovery room. His stent was removed on postoperative day 6, and his symptoms completely resolved within a few weeks.



By Marita Teng, MD
Associate Professor
Department of Otolaryngology

Dr. Teng is a member of the multidisciplinary head and neck cancer team at Mount Sinai. Her clinical interests include head and neck cancer, endocrine surgery, and diseases of the salivary glands.

MOUNT SINAI OTOLARYNGOLGY

Eric M. Genden, MD
Chairman
Head and Neck Cancer

William Lawson, MD, DDS
Vice-Chairman
Rhinology and Facial Plastics

Kenneth W. Altman, MD, PhD
Director, Laryngology and
Professional Voice

Satish Govindaraj, MD
Director, Endoscopic Skull Base
Surgery

Fred Y. Lin, MD
Director, Sleep Surgery

Brett A. Miles, MD, DDS
Head and Neck Cancer

Joshua D. Rosenberg, MD
Facial Plastics, Head and Neck
Cancer

Eric E. Smouha, MD
Director, Otolaryngology and
Neuro-Otology

Marita S. Teng, MD
Head and Neck Cancer

Manhattan:

Faculty Practice Associates
5 East 98th Street, 8th Floor
New York, NY 10029

Center for Science and Medicine
10 East 102nd St, 3rd Floor
New York, NY 10029

Staten Island:

2052 Richmond Road, Suite C
Staten Island, NY 10306

Long Island:

325 Park Avenue
Huntington, NY 11743