A Novel Approach in the Treatment of a Posttraumatic Sialocele
Carlos Torre-León, Quirico Canario and Miguel Garratón
Otolaryngology -- Head and Neck Surgery 2013 148: 529 originally published online 7 December 2012
DOI: 10.1177/0194599812470435

The online version of this article can be found at: http://oto.sagepub.com/content/148/3/529

Published by:
SAGE
http://www.sagepublications.com

On behalf of:
AMERICAN ACADEMY OF OTOLARYNGOLOGY--HEAD AND NECK SURGERY
FOUNDATION
American Academy of Otolaryngology- Head and Neck Surgery

Additional services and information for Otolaryngology -- Head and Neck Surgery can be found at:

Email Alerts: http://oto.sagepub.com/cgi/alerts
Subscriptions: http://oto.sagepub.com/subscriptions
Reprints: http://www.sagepub.com/journalsReprints.nav
Permissions: http://www.sagepub.com/journalsPermissions.nav

>> Version of Record - Feb 22, 2013
OnlineFirst Version of Record - Dec 7, 2012
What is This?
A Novel Approach in the Treatment of a Posttraumatic Sialocele

Carlos Torre-León, MD¹, Quirico Canario, MD², and Miguel Garratón, MD¹

No sponsorships or competing interests have been disclosed for this article.

Keywords
sialocele, parotid duct, facial trauma, parotid duct repair, parotid gland

Received September 28, 2012; accepted November 16, 2012.

The anatomic location of the parotid gland makes its parenchyma and duct particularly prone to injury during trauma cases. Failure to identify and treat injuries to the parotid duct may result in late complications such as sialoceles that increase patient morbidity and discomfort. Initial management of sialoceles typically involves a conservative approach, although more aggressive techniques may be employed if the initial treatment fails.¹ We present a case of 47-year-old female patient who developed a left parotid sialocele several days after receiving a penetrating injury to the left parotid region. We drained the sialocele intraorally using a 16-gauge angiocatheter that was left sutured in place to create a controlled intraoral drainage pathway.

Case Report

We obtained exemption from the Institutional Review Board at the University of Puerto Rico, School of Medicine. The patient is a 47-year-old female patient who, in December 2010, received multiple penetrating injuries to the face and neck with a kitchen knife. The patient was taken to the operating room to repair a small nick to the left internal jugular vein. During this intervention, no injury to the parotid duct was noted, and all open wounds were closed primarily. Ten days later, the patient was referred to the otolaryngology clinics for evaluation of a left parotid cystic mass that was confirmed to be a sialocele of the left parotid gland.

Initially, the sialocele was managed conservatively with repeated percutaneous aspirations, application of local pressure, and antisialogogues. As the sialocele kept recurring, we implemented a technique that provided a constant drainage pathway from the sialocele into the oral cavity. The procedure was performed at our clinics in January 2011. First, we passed 2 nylon sutures through opposite sides of a 16-gauge angiocatheter. After preparing the patient and infiltrating 1% lidocaine into the cheek mucosa, we introduced the catheter intraorally until puncturing the sialocele (Figure 1). This confirmed that the catheter was in the correct position within the

Figure 1. Catheter insertion and drainage of the parotid sialocele. Puncturing and aspirating the cystic content of the sialocele confirmed the correct position of the catheter.

¹Otolaryngology—Head and Neck Surgery, University of Puerto Rico, School of Medicine, San Juan, Puerto Rico
²Department of General Surgery, University of Puerto Rico, School of Medicine, San Juan, Puerto Rico

This work was presented as an oral presentation at the 32nd Annual Surgical Research F. L. Raffucci Forum of the American College of Surgeons; February 24, 2012; San Juan, Puerto Rico.

Corresponding Author:
Carlos Torre-León, MD, Otolaryngology—Head and Neck Surgery, University of Puerto Rico, School of Medicine, San Juan, Puerto Rico, Urb Villa Verde A-5, Guaynabo PR, 00966
Email: torreca12@hotmail.com
capsule of the sialocele. A purse-string suturing technique using the 2 nylon sutures was finally employed to secure the catheter to the cheek mucosa (Figure 2). The procedure was well tolerated by the patient, and there were no complications.

The patient was discharged home on prophylactic antibiotics. The weeks following the procedure, she never complained of pain, eating difficulties, catheter dislodgement, infection, or sialocele recurrence. The catheter was finally removed in the fourth week. During a 1-year follow-up period, there has been no evidence of sialocele recurrence or any other associated complications.

Discussion

Sialoceles are periductal accumulations of saliva that typically develop 8 to 14 days after an injury to the parotid gland. It is estimated that 21% of patients with penetrating trauma to the parotid region experience an injury to the parotid duct. Failure to identify and treat these injuries may result in late complications such as sialoceles and/or cutaneous fistulas.

The current consensus is to repair severed parotid ducts whenever possible, but the reality is that many of these injuries often go undiagnosed, resulting in the delayed formation of sialoceles and/or other complications. Most sialoceles are initially managed conservatively. However, given their tendency to recur, more aggressive techniques that are risky and uncomfortable to the patient are oftentimes employed.

The prognosis for functional recovery of the gland with this type of injury is also very poor. Parekh et al. reported their experience with 51 patients with trauma to the parotid region and concluded that with complete disruption of the parotid duct, there is a progressive diminution of function over time. Similarly, it has been shown that cicatrization from chronic parotid injuries leads to progressive parotid gland atrophy and poor glandular function. Not surprisingly, most techniques used to treat late complications of parotid gland injuries such as sialoceles seek to depress salivary secretions rather than reestablish glandular function. With time, parotid secretions will stop, as eventual gland atrophy takes place.

In this case, we implemented a safe and simple technique to solve a posttraumatic sialocele that carries marginal patient discomfort and that can be done in the outpatient setting. It provides a controlled pathway for salivary flow into the oral cavity, all while allowing the natural healing process of the gland to seal the injury by itself.

Author Contributions

Carlos Torre-León, collected data, wrote article; Quirico Canario, revised article; Miguel Garratón, supervised the procedure, revised article.

Disclosures

Competing interests: None.
Sponsorships: None.
Funding source: None.

References