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| **Name:** |
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| 8A-2 |
| **Pathology Question:** |
| What is the pathophysiology of sialolithiasis? |
| **Report:** |
| Sialoliths or salivary stones are calcifications of debris (bacteria, epithelial cells, foreign material) that form within the ducts of the salivary glands. It is unclear what triggers the precipitation of these materials together. Sialoliths can occur at any of the salivary glands: parotid, submandibular, sublingual or the minor glands, however they are most common in the submandibular gland duct. This is due to the nature of the submandibular duct secretions: they are mixed serous and mucous- thicker than the parotid serous secretion. Furthermore, Wharton’s duct- the duct that empties the submandibular salivary gland delivers its contents against the force of gravity. Typically sialoliths appear singularly.  A patient with a sialolith will likely experience swelling or pain before or while eating a meal. Sometimes if the stone is close to the duct opening, the stone will be visible (yellowish in color) or palpable. Salivary stones are also visible on radiographs, but may be difficult to see as they are radiopaque calcifications that tend to get superimposed with other bony radiopaque structures. They often appear laminated like an onion. CT imaging, sialography, and ultrasound are helpful adjuncts for identifying sialoliths.  Small stones can be passed with techniques like massage (gently trying to move the stone towards the opening of the duct), sialagogues like sour candy, moist heat, increasing fluid intake, etc. The patient may also require antibiotics and anti-inflammatory medication. Larger stones need to be removed surgically, sometimes removing the involved gland as well. Minor salivary gland stones should be removed surgically with the gland. Lithotripsy and sialendoscopy are also newer options for breaking up or removing the salivary stone. Lastly, patients that have salialoliths may develop chronic sialadenitis and should be monitored for this condition. |
| **References:** |
| Neville, B.W. Damm, D.D. Allen, C.M. Chi, A.C. (2016) Oral and Maxillofacial Pathology, Fourth Ed. St. Louis, MO: Elsevier |