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| **Name**: |
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| **Pathology Question:** |
| What is the etiology and treatment of medication-induced xerostomia? |
| **Report:** |
| Xerostomia is defined by the sensation of a dry mouth which can occur when an individual has reduced salivary flow but can also occur when an individual has normal salivary flow but still has a sensation of dry mouth. However, most often it’s thought about during cases where there is reduced salivary flow. Many elderly patients who require medication for the management of systemic disease suffer from xerostomia due to polypharmacy. According to Millsop et al, about 400 different medications affect salivary gland function and lead to hyposalivation. Xerostomia is a common side effect of drugs that are designed to decrease activity of the parasympathetic nervous system, such as parasympatholytics, cholinolytics, and anticholinergics. These categories of drugs are muscarinic receptor antagonists, so they prevent acetylcholine from binding to muscarinic receptor which will decrease the activity of the parasympathetic nervous system and cause effects, such as decrease salivation. Medications that fall under these drug mechanisms are antihistamines, antidepressants, antipsychotics, sedative agents, and antihypertensive medications.  For the treatment of medication-induced xerostomia, topical medications are the first to be recommended. This includes chewing gums, candies, salivary stimulants, and saliva substitutes.  However, sialogogues are not recommended  Treatment of the clinical manifestations of xerostomia can be divided into two categories: systemic sialogogues and top- ical agents (Table 4). The two systemic agents that are ap- proved therapies for xerostomia by the US Food and Drug Administration are oral pilocarpine and cevimeline. Pilocar- pine is a nonselective muscarinic agonist and parasympathetic agent. The recommended starting dose is 5 mg daily for a |
| **References:** |
| Millsop, Jillian W., et al. “Etiology, Evaluation, and Management of Xerostomia.” *Clinics in Dermatology*, Elsevier, 27 June 2017, www.sciencedirect.com/science/article/pii/S0738081X17301062.  Villa, A., Wolff, A., Aframian, D. *et al.* World Workshop on Oral Medicine VI: a  Systematic review of medication-induced salivary gland dysfunction: prevalence, diagnosis, and treatment. *Clin Oral Invest* **19,**1563–1580 (2015). https://doi.org/10.1007/s00784-015-1488-2 |