

The role of dental practitioners in salivary gland health

Salivary glands are integral to oral health, as they are responsible for saliva production which aids in digestion, dental health, and oral hygiene. Dental practitioners play a pivotal role in ensuring the health of these glands and in the management of related disorders, including Sjögren syndrome, an autoimmune condition that primarily affects the salivary and lacrimal glands.

The major salivary glands (parotid, submandibular, and sublingual) and numerous minor glands produce saliva, which is crucial for oral health. Saliva contains enzymes initiating digestion and acts as a buffer against oral acidity, thus preventing tooth decay. Its antimicrobial properties control oral flora and reduce infection risks.

Dental practitioners should assess salivary gland function during routine exams, identifying issues like hyposalivation or xerostomia, which could indicate gland dysfunction. These symptoms may arise from systemic diseases, medications, or lifestyle factors.

Dental practitioners diagnose various salivary gland disorders, including sialolithiasis (salivary stones), sialadenitis (inflammation), and neoplasms. Tools like physical examination, sialography, ultrasonography, and biopsy are used by specialists in oral and maxillofacial surgery (OMFS) or oral medicine. Early detection is crucial for the effective management and prevention of complications.

Sialoendoscopy, a minimally invasive technique developed and often used by specialists in OMFS otolaryngology and oral medicine specialists,¹⁻³ has revolutionized the diagnosis and treatment of salivary gland disorders. It involves the insertion of an endoscope into the salivary duct, allowing direct visualization of the ductal system. This technique enables practitioners to identify and treat disorders such as ductal strictures, sialolithiasis, and recurrent infections more effectively. Dental practitioners trained in sialoendoscopy can perform diagnostic and therapeutic procedures, such as stone removal and ductal dilation, reducing the need for more invasive surgical interventions. This advancement has enhanced the clinician's capability in managing salivary gland diseases, offering patients less invasive treatment options with quicker recovery times.

Management often requires collaboration with physicians, radiologists, and surgeons, especially when systemic diseases affect salivary gland function.

For example, oral medicine or OMFS specialists play a crucial role in the early detection of Sjögren syndrome.⁴ Symptoms like dry mouth, difficulty swallowing, and increased dental caries can be early indicators. Salivary flow tests, imaging techniques (sialography), and salivary glands biopsy can be used for initial assessment. In managing Sjögren syndrome, dental practitioners focus on alleviating oral symptoms and preventing complications. This involves recommending saliva substitutes, enhanced oral hygiene, and dietary advice. Practitioners monitor and treat oral complications like candidiasis and dental caries and educate patients about the disease. The interdisciplinary approach is vital in managing Sjögren syndrome. General dental practitioners collaborate with rheumatologists and ophthalmologists, providing comprehensive care focusing on the oral aspects of the disease.

Dental practitioners manage salivary gland diseases with various strategies. For xerostomia, recommendations include saliva substitutes, systemic sialagogues, increased water intake, and sugar-free gums. Antibiotic therapy is used for proven bacterial infections, while minimally invasive procedures, sometimes aided by sialoendoscopy, address obstructive disorders.

Another role of dental practitioners is to identify salivary gland tumors, which can arise from minor salivary glands in the cheeks, palate, lips, and floor of the mouth, and from the sublingual, submandibular, and parotid glands.

The roles of dental practitioners in maintaining salivary gland health are multifaceted and vital. They are instrumental in the early detection, diagnosis, and management of salivary gland disorders, obstructions, and autoimmune conditions affecting these glands. Through clinical expertise, patient education, and collaborative practice, dental practitioners significantly contribute to the oral and overall health of their patients. Their involvement underscores the importance of oral health professionals in the broader context of systemic health management.

References

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