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Dr.Brown

**Ranula (Floor of Mouth)**

There are various types of oral lesions that may be present in the oral cavity. One of them includes ranula which usually appears on the floor of the mouth. It is a fluid collection or a cyst that forms under the tongue. The fluid is filled with saliva that has leaked out of a damaged salivary gland. Patients may feel a little pain due to swelling, however most of the time the cyst grows slowly until the patient notices it. Since this type of cyst is benign it can be effectively treated with adequate treatment.

Ranula forms when saliva flows into the tissue surrounding the salivary glands instead of in the mouth. This may be due to a blocked or damaged salivary gland. In addition, it can also occur following a traumatic injury to the mouth. Ranulas can form due to the damage or injury of the parotid, sublingual or submandibular glands. However, most of the time a ranula forms due to the sublingual gland. In some rare cases, there may be no etiology present for the formation of ranulas.

Clinically a ranula appears as a “bluish, transparent dome-shaped fluctuant swelling in the floor of the mouth. The deep blue color results from tissue cyanosis and vascular congestion associated with the stretched overlying tissue and translucent character of the accumulated fluid beneath. However, if the extravasation occurs deep into the tissues, the bluish appearance is usually nonexistent but acquires the same color as the oral mucosa. The variation in color depends on the size of the lesion, its proximity to the surface and the elasticity of the overlying tissues” *(Daniels, John Spencer; AlBakry, Ibrahim; Braimah, Ramat Oyebunmi, Samara, Mohammed Ismail).* Ranulas are usually unilateral, however when there is bilateral enlargement, the side of origin is always bigger. The sublingual gland accounts for about 10% of all salivary excretions in the oral cavity.

### With all oral diseases and cysts there is usually a common demographic we may see. “One study showed the variance of age recorded between 3 to 61 years for ranula... Ranulas slowly develop and are typically found in the second or third decades of life or even later in life with a male to female ration of 2:1” *(Santosh Kumar Swain, Debasmita Dubey).*

### With the diagnosis of cysts, it is imperative that we give the patient the correct condition so we can provide the best treatment. To diagnose a ranula it can be done by fine need aspiration cytology (FNAC), ultrasound, magnetic resonance imaging (MRI), or computed tomography (CT) scan *(Santosh Kumar Swain, Debasmita Dubey)*. Not all cysts appear the same radiographically and histologically. Histologically, ranulas may look like “a mucus-containing space lined fibrous connective tissue or granulation tissue with various sizes of vascular lumen (*Moon Ki Choi).* In addition, ranulas lack epithelial tissue in the lining of the ranula. Radiographically ranulas are seen as a well-defined, unilocular, cystic mass with fluid, located within the submandibular space (*Ji Young Lee, Hee Young Lee, Hyung-Jin Kim, Han Sin Jeong, Yi-Kyung Kim, Jihoon Cha, and Sung Tae Kim).*

Ranulas are known as a pseudocyst that arises from an injured salivary gland, usually the submandibular. The dermoid cyst is a “congenital lesion of ectodermal origin. It presents as a slow growing mass, causing elevation of the tongue and interference with speech and swallowing” (*Omisakin Olatunde Oluleke, Kache Stephen Akau, Ayuba Iko Godwin, Aghadi Ifeanyi Kene, and Ajike Olusegun Sunday)*. It can be misdiagnosed as a dermoid cyst due to the similarities in presentation. Too add on, some other differential diagnosis of ranulas include hemangioma, lymphangioma, benign or malignant salivary gland neoplasm, lipoma, abscess, venous lake, fibroma or benign mesenchymal neoplasm (*Mark Boulos, Adam Cheng)*

According tothe *International Journal of Research in Medical Sciences* there is no clear consensus for treating a ranula. It often varies from office to office and is usually done by the removal of the associated salivary gland. In addition, “A retrospective study of clinical records of patients with histological diagnoses of ranula managed at the Departments of Otorhinolaryngology, Dental and Maxillofacial Surgery of a Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria. Marsupialization was performed by excising the superior wall and suturing of the inner wall of the lesion to the mucosa of the floor of the mouth” *(Mohammed Abdullahi, Abdurrazaq Olanrewaju Taiwo, Kurfre Roberts Iseh, Stanley Baba Amutta).* It is believed that this procedure removes cysts so it may not reoccur. Not only is this the only way to treat ranula but in another study, Yoshimura compared three different methods of ranula treatment. The recurrence rate was 25.0% for the excision of the ranula only, 36.4% for marsupialization, and 0% for excision of sublingual gland along with the ranula. Their study concluded that removal of the sublingual gland with the ranula was the most effective treatment modality *(Moon Gi Choi).*

Ranulas may be a benign cyst however there may be risk if it is not treated. This is because without treatment there is a chance it can be life threatening for the patient. This can be due to the slow growth of mass on the floor of the mouth, which may cause difficulty breathing especially if the patient is a newborn. With complete excision of the lesion, recurrence is rare, however it is possible. This can be due to incomplete excision.

As a registered dental hygienist, it is important that we are able identify the oral lesion present in the patient's mouth. A correct diagnosis is imperative for the patient so we can provide them with the best treatment options. Ranulas have the potential to progress and grow so it is important that we as hygienists can identify this type of lesion and provide the right care for the patient. We want to make sure the patient is healthy and never more at risk.

**Citations**

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