

Submandibular Sialadenitis - A Review

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Abstract-

The disease called acute sialadenitis is an infectious or inflammatory disorder of the salivary glands. The exact frequency of submandibular sialadenitis is unclear. The acute conditions more typically involve the parotid and submandibular glands. During an acute inflammatory process, there is swelling of the affected gland, overlying pain, gland tenderness, fever, and on occasion difficulty in opening the mouth. Initial treatment includes rehydration, oral antistaphylococcal antibiotic is started while awaiting culture results. Hygiene and repeated massaging of the gland when tenderness had subsided. This present article gives various details such as its etiology, symptoms, treatment, prognosis. The other names of this disease include sialoadenitis, adenitis, salivary gland inflammation

Key words: Sialadenitis, Salivary gland, inflammation, infection, decreased saliva

Introduction:

Sialadenitis refers to swollen salivary gland. Salivary gland undergoes inflammation, which produces saliva to aid in digestion. This condition is most common among elderly adults and mostly affects the parotid and submandibular glands. Salivary glands are the glands that make saliva, and help with swallowing and digestion and protects our teeth from bacteria⁽¹⁾. There are three main salivary glands:

- Parotid glands in front of the ear in the cheeks
- Submandibular glands under the chin
- Sublingual glands under the tongue

The disease is most common among the elderly adults with salivary gland stones, calcified structures that can form inside a salivary gland and blocks the flow of saliva into the mouth. It can also occur in other age groups, which includes infants during first few weeks of life. It affects men and women of all races in the same manner.(Figure 1)



Figure 1: Sialadenitis

Types of Sialadenitis:

Sialadenitis can be further classed into acute sialadenitis or chronic sialadenitis. Acute sialadenitis is the acute inflammation of a salivary gland which presents itself as a red, painful swelling which is tender to touch. Chronic sialadenitis is less painful but presents as recurrent swellings, usually after meals, with no redness.⁽³⁾

Etiology:

Sialadenitis occurs after hypo secretion or duct obstruction, but might develop without an obvious cause. Saliva flow is reduced in people who are sick and recovering from a surgery, and people who are dehydrated, malnourished or immunosuppressed. A kink in the salivary duct can also reduce salivary flow, and certain medications too such as antihistamines, diuretics, psychiatric medications, beta-blockers, or barbiturates. It occurs in chronically ill people with xerostomia, people with sjogren syndrome, and to those who have radiation therapy to the oral cavity. The disease is caused most commonly due to bacterial infections caused by staphylococcus aureus⁽⁴⁾. Other bacteria which causes the infections include streptococci, coliforms, and various anaerobic bacteria. Although less common than bacteria, several viruses have also been found in sialadenitis. This includes mumps virus, hiv, coxsackievirus, parainfluenza types i and ii, influenza a, and herpes.

Symptoms:

- Enlargement, tenderness of one/more salivary glands
- Mild to high fever
- Decreased salivary secretion
- Pain when having food
- Xerostomia
- Reddish skin
- Swelling in the cheek and the neck region

if any of these symptoms is noticed we are supposed to seek medical advice from your doctor. An otolaryngologist might be suggested.⁽⁵⁾

Treatment:

The treatment of this disease depends on which type of microbe causes the infection. If the infection is bacterial, an antibiotic effective against whichever bacteria is present will be the treatment of choice. If the infection is due to a virus, like herpes, treatment is mostly symptomatic includes antiviral medications. It is most commonly due to bacterial infection caused by staphylococcus aureus⁽²⁾. Other bacteria which can causes this infection includes streptococci, coliforms, and various anaerobic bacteria. Since sialadenitis usually occurs after hyposecretion , patients are advised to drink plenty of fluids, drink this is helpful if the flow is obstructed in any way. Good oral hygiene is important. Abscess may form which needs to be drained especially if it proves resistant to antibiotics and antiviral medication. Its antibiotic therapy includesantistaphylococcal antibiotics like nafcillin, oxacillin,cefazolin.in rare cases of chronic/relapsing sialadenitis, surgery might be needed to remove all of the gland. This disease is more common when there is an underlying condition which causes hyposecretion.

Risk factors of sialadenitis:

The risk factors of this disease includes chronic diseases such as salivary stasis ,immunocompromise ,liver failure ,renal failure ,hypothyroidism ,malnutrition ,HI ,sjogren syndrome .The following reasons can make a person more susceptible to this disease, being over age 65 ,having inadequate oral hygiene ,not being immunized against mumps

Prognosis:

The prognosis of acute sialadenitis is good. Most salivary gland infection goes away on their own or it is easily cured with treatment with conservative medical management like medication, increasing fluid intake and warm

compresses or gland massage. Acute symptoms gets resolved within a week edema in the area may last several weeks⁽⁶⁾. Complications are not common, but might occur and includes abscess of the salivary gland and localized spreading of bacterial infection like cellulitis or Ludwig's angina. In chronic or relapsing sialadenitis prognosis depends on the underlying cause of the infection.

Conclusion:

Patients with any form of sialadenitis must be well educated about the value of hydration and exemplary oral hygiene. This reduces much of the severity of attacks and prevents dental chaotic complications. Patients with this disease must be educated regarding the mechanism of its underlying pathology and methods of maintaining control over them.⁽⁷⁾ Acute sialadenitis presents as a rapid-onset pain and swelling and it is treated with antibiotics, salivary massage, hydration, and sialagogues such as lemon drops or vitamin C lozenges. Research helps us understand the disease better and can lead to advances in diagnosis and treatment of it. Occasionally, a superficial parotidectomy or submandibular gland excision is prescribed for patients with chronic sialadenitis.

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