

Chapter 9

Sialadenitis and Sialadenosis

ABSTRACT

In this chapter, the etiology and management of salivary gland inflammation (sialadenitis) and sialadenosis (sialosis) are discussed. Causes of inflammatory disorders of the parotid gland include viral infections; bacterial infections; recurrent parotitis of childhood; papillary obstructive parotitis; granulomatous sialadenitis; autoimmune sialadenitis including Micks disease, Sjogren's syndrome; and other autoimmune sialadenitis such as Wegener's granulomatosis, Kimura's disease, and chronic sclerosing sialadenitis. Sialadenosis is a chronic, diffuse, non-inflammatory, non-neoplastic disorder causing diffuse enlargement of salivary glands, usually the parotid glands. Grossly, there is only diffuse enlargement of the affected gland, and histologically, the condition is characterized by acinar hypertrophy and fatty infiltration. Patients present with painless, soft, and diffuse enlargement of both parotid glands. Treatment in the form of controlling the underlying disorder or withdrawing the incriminated drug helps sialosis to resolve.

SIALADENITIS

Inflammatory disorders (sialadenitis) of the parotid gland may be caused by viral infections, bacterial infections, recurrent parotitis of childhood, papillary obstructive parotitis, granulomatous sialadenitis, autoimmune sialadenitis, and post-radiation sialadenitis.

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Viral Infections

Mumps

In the United States, aggressive vaccination has significantly decreased the prevalence of mumps sialadenitis, with approximately 300 cases reported annually (Barskey, et al, 2013).

Mumps is a specific acute viral infection due to a paramyxovirus, an RNA virus that belongs to the influenza and para-influenza family. In 85% of cases, it affects the school-age children under the age of 15 years, with an incubation period of 2 to 3 weeks. The illness starts by 1 to 2 days of prodromal influenza-like syndrome (discomfort, loss of appetite, nausea, chills, fever, sore throat, and headache), followed by the appearance of the characteristic face swelling. The patient is infectious from 3 days before the onset of salivary swellings to 7 days after, through airborne droplets of infected saliva. A single episode of infection confers lifelong immunity. Fortunately, this condition has been mostly eradicated as a result of vaccination (McQuone, 1999).

The swelling, which that usually starts unilateral and in a few days becomes bilateral, lasts from a couple of days to one week (Figure 1). The virus causes fever and is considered the commonest cause of acute painful profuse swelling of the parotid gland.

The gland is soft and tender, but never suppurates. Impingement on the auriculotemporal and great auricular nerves causes much pain as the gland is pressured during mastication. Symptoms usually resolve within 5 to 10 days.

Mumps may be complicated by pancreatitis, orchitis, and oophoritis. It might be a cause of abortion during the first trimester of pregnancy because of fetal endocardial fibroelastosis. Sensorineural deafness (1/20,000) and meningo-encephalitis are rare, but are more likely to occur in adults.

Laboratory findings include leukocytopenia with relative lymphocytosis. Serum amylase peaks in the 1st week and normalizes by the 2nd or 3rd week. Soluble antibodies directed against the nucleoprotein core of the virus appear within the final week of infection, and disappear within 8 months. Antibodies directed against the outer surface appear several weeks after soluble antibodies, and persist for 5 years. Mumps is a self-limited disease that requires rest and symptomatic treatment only, which includes antibiotics, sialagogues and rehydration (McQuone, 1999).

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