An interesting case of recurrent parotitis

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Abstract:

Recurrent parotitis is defined as recurring inflammation of parotid gland, in which there is dilatation of parotid duct. It is non-obstructive in natu and quite uncommon in paediatric age group. The exact cause is unknown. There is usually a history of multiple episodes of parotid swelling and/or pain associated with fever few times over a period of years. There is no universal consensus regarding its mana ement protocol, but a conservative approach is preferred by the most of pediatric surgeons. These children should be screened for Sjogren's syndrome and immune deficiency including human immunodeficiency virus. There usual tendency to resolve spontaneously after puberty. We are reporting a 07 years child who presented with multiple episodes parotid swelling in the past 5 years.

keywords: Paediatric age, parotitis, recurrent

Introduction:

A 07 years old boy presented with recurrent bouts of painful swelling of left the rotid gland accompanied by fever and malaise. He had 10-15 such episodes each lasting 7-10 days in the last 05 years. The present episode lasted for 10 days. here was no history suggestive of autoimmune disorders. On examination, the swelling was smooth, firm in consistency and tender to touch. There was no erythema around the duct openings and there was serous discharge on pressing the gland. he culture of discharge revealed no growth. The baseline investigations and inflammatory markers were normal. Human immunodeficiency virus (HIV) serology, serum ANA and rheumatoid factor were negative. Ultrasonography of parotid gland showed heterogeneous echogenicity with hypo-echoic areas suggesting sialectasis. Fine needle aspiration cytology findings were also favoring the diagnosis of sialoadenosis. Sialography showed discrete punctate calcifications in the substance of parotid gland and no stricture or obstruction of parotid duct with free flow of contrast. We examined under anesthesia to get parotid duct ecretions for culture and lavage the parotid duct with saline that resulted in early resolution of symptoms. A diagnosis of recurrent parotitis was made and child was given plenty of fluids, analgesics, warm compresses and co-amoxiclav. We also counseled the parents in the light of available literature that these symptoms can resolve spontaneously in 90%cases around puberty. Two year follow up showed much improvement in the symptoms.

Discussion:

Recurrent parotitisis a rare disorder of childhood charac ized by repeated episodes of non-obstructive parotitis. Although no specific c se has been identified, local autoimmune factors, infection an mmune deficiency should be ruled out.The disease usually manifests between 3 and 6 years of age and often misdiagnos as mumps, otitis media or pharyngitis.[1] Symptoms include recurrent parotid swelling and pain associated with fever and malaise. It is usually unilateral but can occur on both sides with symptoms more marked on one side (2)Sympt ms usually last 7-10 days with a median of 06 days. The mean frequency is eight episodes per year.[1] However, in our child, the symptoms were unilateral and lasted for 10 days and the frequency was 3-4 episodes per year.

Leerdam *et al* conducted a study in 53 children with r urrent parotitis the commonest symptoms were swelling (100%), pain (92.5%) and fever (41.5%). In 90% of the patients, the symptoms resolve spontaneously by puberty. In few severe cases there is progression leading to the destru on of the glandular parenchyma with a diminution of its functionality by 50-80%(3). Parotitis may be the first symptom of an underlying immunodeficiency, HIV infection and Sjogren's syndrome(4).IgA deficiency was found in a child with recurrent parotitis y Shkalim *et al* suggested that the lack of IgA may be involved in the pathogenesis of recurrent parotitis[5].

The pathogenesis of recurrent parotitis remains unclear, however, the main cause is thought to be the decreased salivary production with an insufficient salivary outflow through the ductal system which favors

ascending salivary gland infections via the oral cavity(2).Partial obstruction due to retention of secretions is gradually followed by duct dilatation which further facilitates infection. Pathological studies reveal several structural changes in the affected parotid gland, while there is still a discussion whether these are the primary features or as a result of multiple episodes of parotitis.

Ultrasound is believed to be better than sialography in the diagnosis of sialectasis and has replaced it.[1,6] Sialendoscopy is superior method of diagnosis and treatment, Nahlieli et al via sialendoscopy performed lavage and instilled hydrocortisone injection followed by resolution of symptoms. Author found very good results and recurrence of the symptoms occurred only in 2(8)% of children.[7]

There is no universal management of this condition. It ranges from conservative approach to invasive surgical procedures. Initially conservative treatment is indicated because the natural history suggests spontaneous resolution in 90% cases. Analgesics, attention to good oral hygiene, massage of the parotid gland, warmth, use of chewing gum and sialogogic agents are helpful. Antibiotic administration during acute episode is often thought to prevent additional damage to the glandular parenchyma while low-dose prophylactic antibiotics have been recommended when an immunoglobulin A deficiency is observed(8) However, recurrent swelling and over a long period can affect patient's social life and school activities. Moreover, few patients can develop sequelae such as recurrent pain, chronic swelling and decrease in glands function. Such patients are candidates for interventional treatment which can further be substantiated with sialographic evidence of multiple strictures. These patients can be offered stricture dilatation along with washing of plaques as performed by Nahlieli et al.[1],7,[8] More aggressive treatment is justified only for those patients with persistent problems and includes parotid duct ligation, parotidectomy or tympanic neurectomy but all have unsatisfactory results.(9) Patients with recurrent parotitis may develop Sjogren's syndrome in adult life.(10) Hence regular follow-up and early management are required for pediatric patients with parotid swelling and paediatric surgeons should be aware of this disease and treatment options.

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