Recurrent parotitis in children

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ABSTRACT

Recurrent parotitis is an uncommon condition in children. Its etiological factors have not been proved till date although causes due to genetic inheritance, local autoimmune manifestation, allergy, viral infection and immunodeficiency have been suggested. The exact management of this disorder is not yet standardized, but a conservative approach is preferred and all affected children should be screened for Sjogren’s syndrome and immune deficiency including human immunodeficiency virus. We report a 12 years female child who presented with 12 episodes of non-painful recurrent swellings of the bilateral parotid gland in the past 3 years.

KEY WORDS: Children, parotitis, recurrent

INTRODUCTION

Juvenile recurrent parotitis is a non-obstructive, non-suppurative parotid inflammation in young children. It is a rare condition and is of unknown etiology. It is characterized by multiple episodes of unilateral or bilateral parotid inflammation over a period of years. Its treatment is not yet standardized.

CASE REPORT

A 12 years female child presented with repeated episodes of non-painful swellings of both the parotid glands. She had altogether 12 such episodes lasting 10-15 days each in the last 3 years. The present episode was there for last 10 days. There was no history of dryness of mouth and eyes, joint pains and swellings and skin rashes suggestive of autoimmune disorders. The parotid swellings on examination were smooth, soft to firm in consistency and non-tender. There was no erythema around the duct openings and there was serous discharge on pressing the glands. Her hemoglobin, total leukocyte count and ESR were normal. Human immunodeficiency virus (HIV) serology, serum ANA and rheumatoid factor were negative. Ultrasonography of bilateral parotid glands showed heterogenous echogenecity with hypoechoic areas suggesting sialectasis. Fine needle aspiration cytology findings were also favoring the diagnosis of sialoadenosis. The child was asked to take plenty of fluids during such episodes and the parents counseled that the symptoms might disappear as the child grew.

DISCUSSION

Juvenile recurrent parotitis is a rare disorder of childhood characterized by repeated episodes of non-obstructive parotitis. Although no specific cause has been categorically attributed to the disorder, local autoimmune factors, infection and immune deficiency has to be ruled out before labeling it as idiopathic.

The disease usually manifests between 3 and 6 years of age.\(^1\) Leerdam et al have shown a biphasic age distribution with peaks at 2-5 years of age and at 10 years.\(^2\) In the present case the child had first episode at the age of 9 years.

Symptoms usually last 2-7 days with a median of 3 days. The mean frequency is eight episodes per year.\(^1\) Some other authors have shown more than 20 attacks per year.\(^3\) However, in this child, the symptoms lasted for 15 days and the frequency of episodes were four per year. We also tried to rule out infectious etiology by doing blood counts and autoimmune etiology by ESR, RA factor and ANA. The results were non-contributory. The absence of raised ESR, RA factor and ANA perhaps point toward negative regarding autoimmune etiology, although it would have been better if antibodies including anti-Ro and anti-La were also looked for in the serum, but because
of the lack of such laboratory investigation facility, it was not done.

Recurrent parotitis may be the first manifestations of HIV infection or immune deficiency disease. IgA deficiency was found in a child with recurrent parotitis by Shkalim et al and suggested that the lack of IgA may be involved in the pathogenesis of recurrent parotitis.\(^4\)

In a study done by Leerdam et al in 53 children with recurrent parotitis the commonest symptoms were swelling (100%), pain (92.5%) and fever (41.5%). But surprisingly in the index case, there was no associated history of pain and fever during episodes.

Ultrasound is superior to sialography in the diagnosis of sialectasis.\(^3\) People have evaluated magnetic resonance imaging (MRI) findings of the parotid glands during acute and symptom free period and tried to correlate them clinically. Two different patterns were identified by MRI: acute inflammation versus chronic inflammation. Contrast enhancement of the parotid gland indicated acute inflammation. Cysts due to chronic inflammation were encountered in the children who suffered multiple episodes of inflammation.\(^6\)

Sialoendoscopy is another possible method of correct diagnosis, where the main endoscopic finding would be a white appearance of the ductal layer without the healthy blood vessel coverage.\(^7\)

The exact management of this disorder is controversial. The natural history suggests that most of the patients will be symptom free after puberty.\(^1,8\) Children would usually have received multiple courses of antibiotics. But antibiotics do not have a role in treatment. Recently Nahlieli et al have suggested a new method of treatment of this disorder. The treatment modality was composed of lavage, ductal dilation and hydrocortisone injection via sialendoscopy. They found that the recurrence of the symptoms occurred in only 8% of children. But whatever the treatment, affected children should be screened for Sjogren’s syndrome and immune deficiency including HIV.

REFERENCES


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