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JUVENILE RECURRENT PAROTITIS: A NEW CASE REPORT

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ABSTRACT
Juvenile recurrent parotitis is a rare pediatric condition that typically begins in early childhood. It is often recurrent, with multiple inflammatory episodes per year. Diagnosis relies primarily on clinical evaluation, confirmed by ultrasonography. Management is not standardized and includes symptomatic treatment, sometimes supplemented with antibiotics by certain teams. The main challenge lies in managing recurrent inflammatory episodes. The prognosis is generally favorable, with spontaneous resolution of the disease by adolescence.

KEYWORDS: Juvenile recurrent parotitis; recurrent parotitis; salivary endoscopy; sialography.

INTRODUCTION

Juvenile recurrent parotitis (JRP) is a rare pediatric disease that usually presents between 3 and 5 years of age, with a male predominance.[1] It is a non-purulent condition, often recurrent, with multiple inflammatory episodes per year. Clinically, it is characterized by unilateral or bilateral parotid swelling, most often asynchronous and non-suppurative.[2] Diagnosis is based on characteristic ultrasonographic criteria. In the absence of complications, the natural course typically involves spontaneous resolution during adolescence.[3] The main difficulty in management lies in addressing recurrent inflammatory episodes.

We report the case of an 11-year-and-6-month-old child admitted to the Pediatrics Department of Military Hospital Mohamed V of Rabat for left parotid swelling.

MATERIALS AND METHODS

The patient, K.A., an 11-year-and-6-month-old boy, was fully vaccinated according to the National Immunization Program. Since the age of 5, he had experienced recurrent unilateral and/or bilateral cheek swellings, occurring 1 to 2 times per year. These episodes were initially managed as cheek cellulitis with oral amoxicillin-clavulanate on an outpatient basis, with clinical improvement.

Due to increased frequency of parotitis episodes (3–4 times per year) and the occurrence of a severe episode marked by persistent swelling despite usual antibiotic treatment, the child presented to our institution.

Clinical examination revealed a child with normal anthropometric parameters and a painful swelling in the left parotid region without overlying inflammatory signs. Small (<1 cm), mobile, painless cervical lymph nodes were noted. The throat was clear, with no tonsillar hypertrophy or pharyngitis, and tympanic membranes were normal. Genital examination revealed no orchitis or acute scrotal swelling. The remainder of the physical examination was unremarkable.

Laboratory tests showed a normal complete blood count. C-reactive protein was 27 mg/L, and erythrocyte sedimentation rate was normal at 5 mm/h. Liver function tests and serum lipase were within normal limits. Viral serologies (hepatitis, HIV, EBV, and CMV) were negative. Tuberculosis workup and chest radiography were unremarkable, excluding tuberculous parotitis. Immunologic evaluation, including lymphocyte subtyping, quantitative immunoglobulins, and vaccine antibody titers, was normal.

Cervical ultrasonography (figure 1) demonstrated an enlarged parotid gland measuring 46 × 16 mm, containing multiple hypoechoic areas, some with heterogeneous fluid content measuring 4–6.5 mm, with parenchymal hypervascularization and no detectable ductal dilatation or lithiasis. Left submandibular lymph nodes measured 8.5–10 mm, consistent with inflammatory changes.

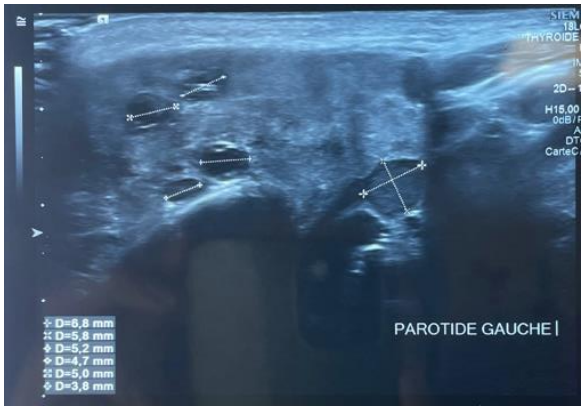

Figure 1: Cervical ultrasound of the patient, revealing the left parotid pland and its contents.

Parotid CT confirmed left parotid swelling associated with infiltration of adjacent subcutaneous fat and bilateral lateral cervical lymphadenopathy. MRI (figure 2) further demonstrated left parotitis without tumoral lesions, with microabscesses and regional adenitis.

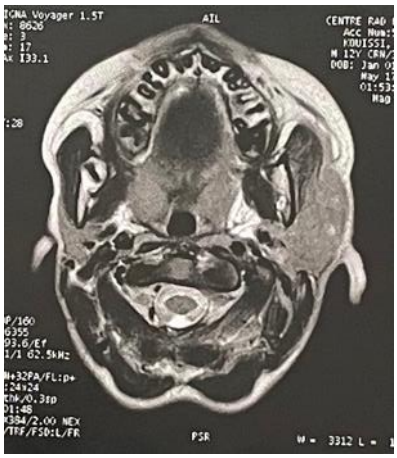

Figure 2: MRI of the patient showing left parotitis.

The patient was treated with intravenous amoxicillin-clavulanate. Immediate outcome showed resolution of swelling without complications. Six months later, a new episode occurred, confirmed clinically and ultrasonographically, and was managed on an outpatient basis.

RESULTS AND DISCUSSION

Recurrent parotitis in children occurs in a biphasic pattern, with peaks between ages 3–6 and around 10 years.[4] Early episodes are often mistaken for mumps, but repeated episodes clarify the diagnosis[5], as observed in our case. Most studies report a male predominance[4,5], consistent with our patient; however, after puberty, females are more commonly affected.[6]

Clinically, typical symptoms include swelling (100%), pain (92.5%), and fever (41.5%).[4] In our patient, only swelling was present, likely due to prior antibiotic and paracetamol use. Most cases involve unilateral glands.[6] Symptom duration ranges from 2–7 days, with a median of 3 days.[4] Episode frequency varies from 1 to 10 per year[6], contrasting with our patient's 4 episodes per year. Diagnosis is often delayed, occurring after more than 1 year in 70% of patients, with a maximum delay of 8 years, as in our case.[4]

Laboratory findings are nonspecific, ranging from leukocytosis with neutrophilia and hyperamylasemia[6] to hypogammaglobulinemia.[4] Although diagnosis is clinical, sialography was historically considered the primary imaging modality, despite challenges in young children.[6] Recent studies indicate ultrasonography as the preferred tool for diagnosis and follow-up (7). MRI or CT is indicated if solid lesions are detected.[8]

Although antibiotics have no formal role in JRP management, 54% of patients receive them at least once for parotitis[4], as in our patient, likely due to initial misdiagnosis. Therefore, clinicians should identify key clinical features of JRP, namely absence of pus and recurrent episodes.[4] Differential diagnoses include recurrent mumps, viral infections (EBV, CMV)[9], autoimmune disorders (primarily Sjögren's syndrome)[10], and certain immunodeficiencies (HIV).[6]

The etiology of JRP remains unknown. Proposed hypotheses include decreased salivary flow[11] and congenital ductal anomalies.[12] The natural course tends toward spontaneous remission during puberty, although episodes may persist into adulthood, often more severe and occasionally requiring gland excision.[6] Two theories explain spontaneous resolution: total gland atrophy leading to symptom absence or gland regeneration from surviving ducts. MRI studies suggest chronic juvenile parotitis may involve acute exacerbations superimposed on slow glandular destruction.[8]

Acute-phase management aims to relieve symptoms and prevent parenchymal damage.[13] Anti-inflammatories, analgesics, local heat and massage, and antibiotics for secondary bacterial infection are usually sufficient. Amoxicillin-clavulanate can be used, but penicillins are preferred due to the rarity of Staphylococcus aureus as a causative agent. Prophylactic antibiotics for future episodes are ineffective.[13]

CONCLUSION

Juvenile recurrent parotitis is a rare condition with likely multifactorial etiology. It poses diagnostic and therapeutic challenges. Salivary endoscopy and sialography remain important tools in the diagnostic and therapeutic arsenal.

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