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IMAGES IN CLINICAL PRACTICE

NEONATAL PAROTID ENLARGEMENT - A DIAGNOSTIC CHALLENGE

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A 24-days-old male newborn was brought the emergency department for the sudden appearance of left preauricular swelling. Gestation was complicated with preeclampsia, and he was born via vaginal delivery at 37 weeks. Postnatal period proceeded uneventfully. There was no history of fever or other clinical symptoms. Trauma and contact with household animals were denied.

On examination, there was a soft left parotid enlargement measuring approximately two centimeters, with well-defined limits and painless to touch. The integrity and color of the overlying skin was preserved with no signs of fluctuation (Figure 1). There were no adenopathies or other remarkable findings at the physical examination. Ultrasound revealed an increase in the size of the parotid gland, presenting an ovoid shape and homogeneous structure, with no evidence of focal changes or ductal ectasia. The blood count was normal, except for the presence of neutropenia (910?L), CRP <0,60mg/L.

Figure 1. Soft left preauricular enlargement, measuring approximately 2cm, with well-defined limits and painless to touch.

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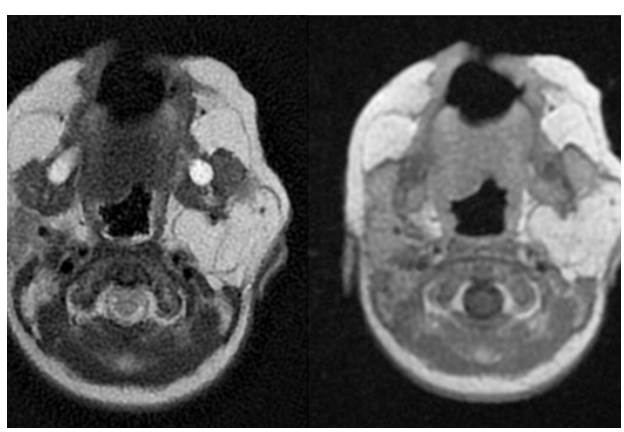
What is the most probable diagnosis?

The newborn was admitted to the ward and started on empiric intravenous antibiotic therapy for parotiditis. Due to the absence of clinical improvement at 72 hours, a new ultrasound was performed which had similar findings than the previous one. A magnetic resonance imaging (MRI), performed later, revealed a highly vascularized lobulated lesion, with early uptake in the dynamic study and replacement of the entire glandular stroma, suggestive of a **parotid infantile hemangioma** (Figure 2). Antibiotic therapy was discontinued and therapy with propranolol was started due to the functional and aesthetic risk of the lesion. Regular ambulatory follow-up was ensured by a multidisciplinary team encompassing pediatricians, hematology, and pediatric surgeons. The patient is now in the 4th month of treatment, presenting with substantial involution of the lesion. To this date, still has neutropenia (but no other cytopenias), whose cause hasn´t been identified. There are no infectious complications, growth parameters are appropriate for his age.

Figure 2. MRI A) axial T2 and B) axial T1 with intravenous contrast showing an enhanced lobulated soft tissue mass at the parotid region, suggestive of parotid hemangioma.



Despite being rare, **parotid gland hemangioma** is the most common non-inflammatory salivary gland mass in the pediatric population. In this case, the early presentation and the absence of a superficial

component made the diagnosis more challenging. Infantile hemangiomas can subside without treatment, but rapid growth may cause aesthetic complications, obstruction, and distortion of adjacent structures, as well as lesion ulceration. Clinical suspicion and early diagnosis avoids unnecessary investigation and treatments, enabling the correct therapeutic approach and guidance.

Compliance with Ethical Standards

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Conflict of Interest None

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