

# Lameness and exophthalmos in a child: which diagnosis?

Wajdi Arfa<sup>1</sup>, Mohamed Ghammem<sup>1</sup>, Khaled Anis Kamoun<sup>1</sup>, Mourad Jenzri<sup>1</sup>, and Zied Jlalila<sup>1</sup>

<sup>1</sup>Mohammed Kassab National Institute of Orthopaedics

July 16, 2024

This is the case of a 4-year-old girl, who was admitted to our pediatric orthopedic department to investigate a lameness associated with fever that had been evolving for 5 days. Mobilization of the right hip was painful. The laboratory tests were normal, as well as the X-ray of the pelvis. Ultrasound revealed a slight effusion in the right hip. MRI showed two anomalies located at the anterior and posterior walls of the right acetabulum, which appeared as hypo-intense on T1 and enhanced after contrast injection (fig1). An infectious or tumoral origin was suspected, and a CT-guided biopsy was planned. However, the day before the biopsy, it was discovered that the girl had developed right exophthalmos and periorbital ecchymosis (fig2). A cerebral CT scan was performed, revealing a lytic lesion of the greater wing of the right sphenoid bone with periosteal reaction invading the right external oculomotor muscle (fig3). A metastatic origin was suspected for both the orbital and acetabular lesions. A thoracoabdominal CT scan was performed in order to identify the primary tumor. A left retroperitoneal mass was found opposite L3 and L4, extending over 4 cm (fig3). A CT-guided biopsy confirmed the diagnosis of neuroblastoma. The patient was transferred to a specialized pediatric oncology center for further therapeutic management. The important clinical teaching of our case is to remember that exophthalmos with periorbital ecchymosis, excluding a traumatic context, in a child under 5 years old, should lead to suspicion of metastatic neuroblastoma, known as Hutchinson's syndrome [1].

**References:** 1. Dari D, Merad S, Medjahedi A. Syndrome d'Hutchinson : impact diagnostique de la scintigraphie à la 131I-MIBG et de l'imagerie hybride TEMP/TDM dans la prise en charge du neuroblastome. *Médecine Nucléaire* 2021; 45(4):218–9.



