



## Differential diagnosis of orbital tumours in children area

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### Abstract

Orbital tumours in children are very rare and radiologic image, as magnetic resonance, is extremely important for correct diagnosis. We report six cases of different diagnosis of orbital tumors, comparing their images and clinical aspects. Radiologic images are essential for determine specific diagnosis in most cases of pediatric orbital pathology. Keywords: orbital, tumors, proptosis, hemangioma, rhabdomyosarcoma, neuroblastoma, choroma, synovial sarcoma, magnetic resonance imaging, radiology.

**Abbreviations:** MRI, magnetic resonance imaging

### Introduction

tumors in children are very rare and can initially manifest with ocular proptosis. These lesions have different etiologies, which are divided into benign or malignant, and can be primary from orbital or be a metastatic product. Radiology study of these tumours is extremely essential for distinguish possible diagnosis, once it characterize its localization, extension, relation between adjacent structures, as well as cellularity and vascularity. In this way, radiology studies permits thinking about differential diagnosis easily. We report some clinical cases that have in common orbital commitment and proptosis as first manifestation, and their images correlations in cranial and orbit magnetic resonance. By this, radiological differences between the possible diagnoses will be illustrated.

### Case reports

**Case 1** A one-year old boy, presented with a progressively enlarging mass in right eye, with a four months growth. At physical examination, right orbital lesion, with pseudo proptosis, without inflammatory signs or local lymph nodes. Blood count normal, chest X-ray normal, abdominal ultrasound normal. Cranial and orbit MRI shows a right orbital extraconal mass in the upper quadrant invading the eyelid. Biopsy of the lesion showed a embryonal rhabdomyosarcoma

**Case 2** A seven-year old girl, presented with frontal headache, superior left eyelid with ptosis, and blindness, which began fifteen days ago. At physical examination, left eye proptosis, without inflammatory signs or local lymph nodes. Blood count normal, chest X-ray normal, abdominal ultrasound normal. Cranial and orbit MRI reveals a left posteromedial orbital mass with aggressive features extending to the left middle cranial fossa, suggestive of malignant etiology. Incisional biopsy of the lesion revealed a rhabdomyosarcoma

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