



What is Important in The Diagnose of Orbital Varix?

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ABSTRACT

Orbital venous varices are large tubular venous channels which generally have direct connection with the systemic venous system. Orbital venous varices are rare entity (less than 1, 3% of all orbital tumors) of orbital tumors, which often located in the intraconal area of orbital apex. In suspicion of orbital venous varices, performing prone position with Valsalva maneuver during MRI examination will be helpful to the radiologist to diagnose the orbital venous varices.

Key words: Orbital venous varix, magnetic resonance imaging, prone position

Orbital Varis Tanısında Önemli Olan Nedir

ÖZET

Orbital venöz varisler sistemik venöz ağ ile bağlantılı geniş tübüler kanallardır. orbital apeksin intrakonal alanında yerleşmiş nadir görülen (tüm orbital tümörlerin %1,3'ünden daha az) lezyonlardır. Orbital venöz varis şüphesinde Valsalva manevrası yaparak pron pozisyonda MR görüntüleme tanı koymada yardımcıdır.

Anahtar kelimeler: Orbital ven varis, magnetik rezonans görüntüleme, yüzüstü pozisyon

INTRODUCTION

Orbital venous varices (OVV) are large tubular venous channels which generally have direct connection with the systemic venous system (1-2). OVV is a rare entity (less than 1, 3% of all orbital tumors) of orbital tumors, which often located in the intraconal area of orbital apex (3).

CASE

22-year-old woman admitted to the eye outpatient clinic with the complaint of unilateral proptosis with Valsalva maneuver and lean forward position. MRI (with IV Gadolinium injection) performed to the patient to determine the cause of the proptosis. In MRI, intraconal located, ill-defined mass lesion detected which

was extending to the orbital apex from the retro orbital area. The lesion was hypo intense in T1WI and hyper intense in T2WI. Post Gad images showed well contrast enhancement of venous channels. The diagnosis of the lesion was OVV with the clinical evaluation.

DISCUSSION

OVV are classified as primary and secondary. Primary OVV can be idiopathic or congenital. Secondary OVV are acquired due to increased blood pressure because of intracranial arteriovenous malformations, carotidocavernous fistula or dural arteriovenous fistula (4,5).

OVV are in continuity with the systemic circulation so increasing in systemic venous pressure induces the inter-



Figure 1. Axial T1-weighted MR image in prone position, white arrow indicates intraconal mass lesion

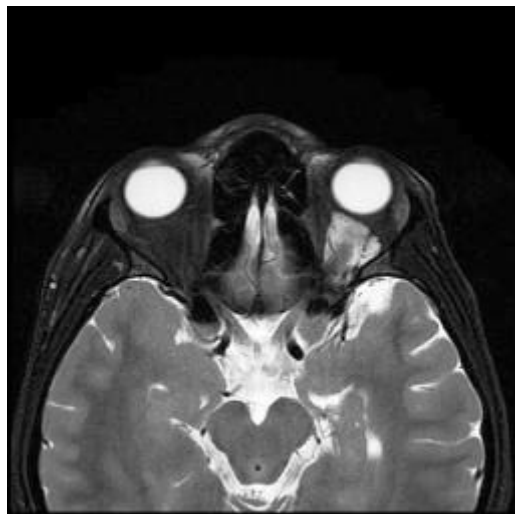


Figure 3. Axial T2-weighted MR image in prone position, revealing left sided intraconal mass lesion

mittent proptosis (6). OVV may increase the intraocular pressure and increased pressure can cause optic nerve damage and vision impairment. Intralesional thrombosis, calcification or hemorrhage are the complications of the OVV (7). Without provocative examination (Valsalva maneuver) it is difficult or impossible to diagnose the OVV due to the completely collapse. Orbital venous pathologies are mimic each other. Contrast enhancement

in venous phase and enlargement with Valsalva maneuver can differ OVV from other venous situations (3). MRI images and the clinical findings should be evaluated together to diagnose the OVV.

In suspicion of OVV, performing prone position with Valsalva maneuver during MRI examination will be helpful to the radiologist to diagnose the OVV.

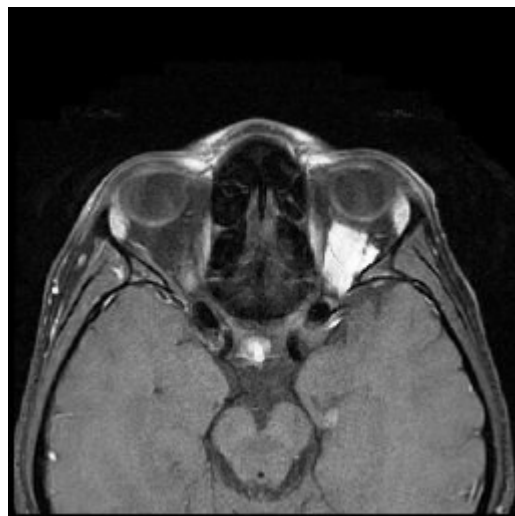


Figure 2. Axial T1-weighted MR image after IV Gad injection in prone position, white arrow indicates intensely enhancing intraconal mass lesion

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