

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

### Pediatric radiology Quiz – Case 2

A 14-year-old boy presented to the emergency department of our hospital with worsening headache during the last 3 days. The boy had visited the previous day the emergency department of another hospital due to his headache, and discharged with the initial diagnosis of migraine. The patient was lethargic without neurological deficits, with papilledema and referred urgently to our computed tomography (CT) department. Non-enhanced (NECT) and contrast enhanced CT (CECT) was performed, that revealed filling defects in right sigmoid sinus (fig. 1) and right jugular vein (figures 2, 3a,b).

#### Comment

Due to its great diversity of clinical symptoms, early diagnosis of cerebral vein thrombosis is challenging for radiologist, in order to start specific treatment. NECT is usually the first imaging test performed on emergency basis and in this clinical setting hyperat-

tenuating thrombosed dural sinus or veins may be demonstrated. CECT can demonstrate filling defects in deep and superficial intracranial venous system. Common variants of sinovenous system (e.g. asymmetry of transverse sinuses, atretic posteromedial segment of the left transverse sinus, and direct protrusion of arachnoid granulations into the sinus lumen) should be taken into account and not misinterpreted as cerebral vein thrombosis.

ARCHIVES OF HELLENIC MEDICINE 2013, 30(6):746–747  
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2013, 30(6):746–747

T.N. Spyridopoulos,<sup>1</sup>  
C. Kotsalis,<sup>2</sup>  
A. Stratigopoulou,<sup>1</sup>  
N. Evlogias<sup>1</sup>

<sup>1</sup>Department of Radiology, Penteli Children's Hospital, Palea Penteli,  
<sup>2</sup>Department of Pediatric Neurology, Penteli Children's Hospital, Palea Penteli, Greece

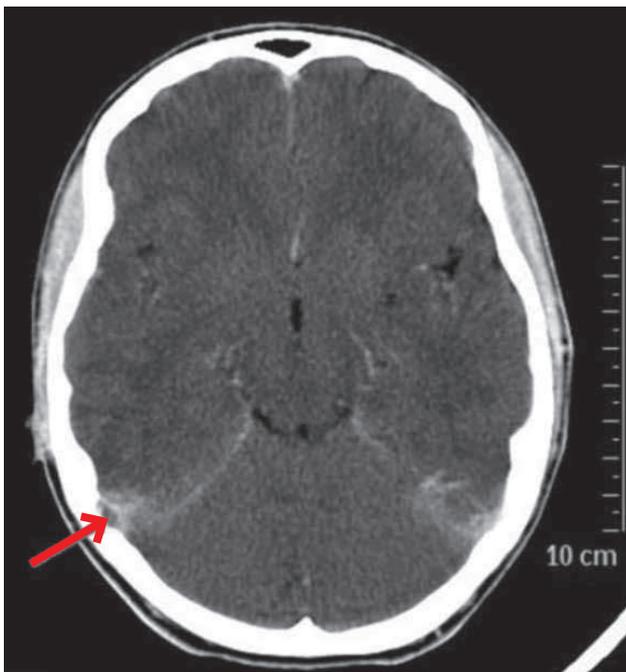


Figure 1. CECT, axial view: Thrombus (red arrow) in right sigmoid sinus.

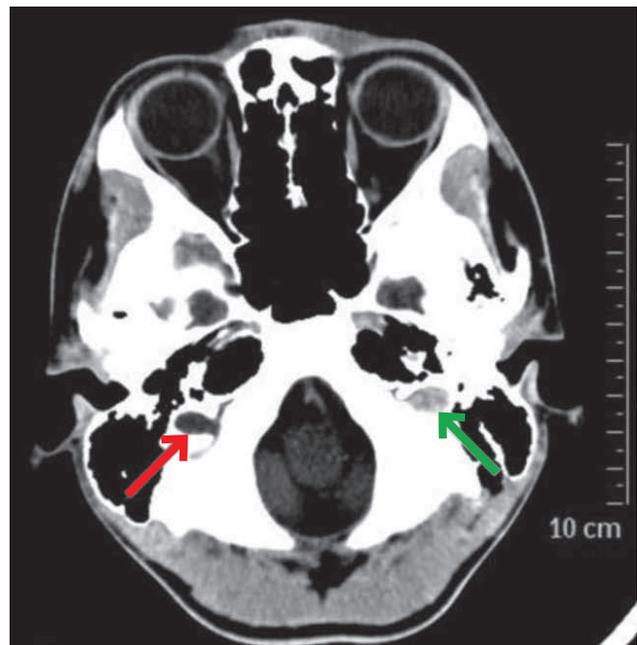
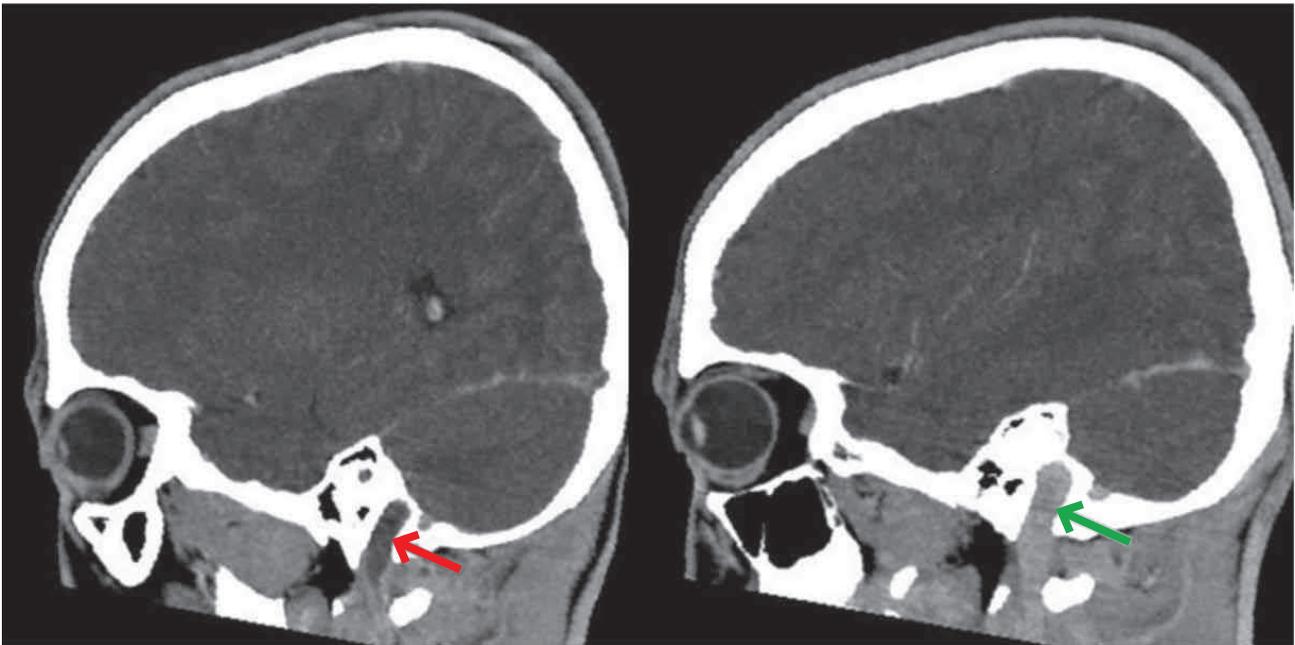


Figure 2. CECT, axial view: Thrombus (red arrow) in right jugular foramen, compared with enhancement of left jugular vein (green arrow).



**Figure 3a, b.** CECT, sagittal views: Thrombus (red arrow) in right jugular foramen, compared with enhancement of left jugular vein (green arrow).

#### References

1. LEACH JL, FORTUNA RB, JONES BV, GASKILL-SHIPLEY MF. Imaging of cerebral venous thrombosis: Current techniques, spectrum of findings, and diagnostic pitfalls. *Radiographics* 2006, 26(Suppl 1):S19–S41
2. STAM J. Thrombosis of the cerebral veins and sinuses. *N Engl J Med* 2005, 352:1791–1798

#### Corresponding author:

T.N. Spyridopoulos, Department of Radiology, Penteli Children's Hospital, Palea Penteli, Greece  
e-mail: thspyrid@med.uoa.gr