

Neuro-Ophthalmology

ROLE OF HEAD CT SCAN IN THE ASSESSMENT OF ACUTE ISOLATED 6TH NERVE PALSY IN INDIVIDUALS WITHOUT CLEAR INDICATIONS FOR NEUROIMAGING

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PURPOSE

To analyze the role of unenhanced head-CT in the assessment of acute isolated 6th nerve palsy in older individuals (50 years old) with cardiovascular risk factors presenting to the emergency department.

Their management is still controversial. While some image them at presentation, others prefer to observe them for a short period, as they should improve spontaneously (2-3 months) since a microvascular etiology is presumed.

METHODS

Secondary longitudinal retrospective analysis of data from patients presenting with acute onset binocular diplopia (AOBD) to an emergency department (ED) of a tertiary hospital.

RESULTS

Among all the patients presented to the ED complaining of AOBD in a period of 10 years; 172 fulfilled the following inclusion criteria:

- Acute onset (48 hours)
- 6th nerve palsy
- 50 years old
- Microvascular risk factors
- Absence of any other symptoms
- Absence of trauma or toxic history
- Unenhanced head CT scan was performed

Sensitivity of CT scan was 5,23%.

CONCLUSIONS

AOBD is a low prevalence condition with potential underlying etiologies that could pose not only a risk for vision but also for life.

Being less sensitive for AOBD, CT is cheaper and widely available compared to MRI with contrast. A little economic burden should be expected when using it in the management of such a low prevalence condition.

Based in our results, we consider further studies are required to better assess the role of unenhanced head CT scan in managing isolated acute 6th nerve palsies from a cost-effective perspective.

FINANCIAL DISCLOSURE

The authors have no financial interest or relationships to disclose.