

HEADACHE IN THE EMERGENCY DEPARTMENT: WHAT ROLE FOR HEAD CT-SCAN?

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Introduction: Headache is one of the commonest neurological presenting complaints in the emergency department (ED). Even though primary headache is the most frequently established diagnosis, a lower yet noteworthy percentage of patients have secondary causes. The medical and legal implications of overlooking these conditions often lead to a controversial overuse of ancillary tests, namely computed tomography (CT).

Aim: To determine the usefulness of head CT in the management of nontraumatic headache in the ED.

Methodology: Retrospective review of the files of patients admitted for nontraumatic headache, examined by neurologist and submitted to CT, between January and December of 2008. The demographics, clinical data, presence of «red flags», neurological examination (NE), imaging evaluation and final diagnosis were contemplated.

Results: Two hundred and thirty-one patients were selected, with a mean age of 47 years, 154 were female and 80 had previous history of headache. «Red-flags» were present in 74% and de novo NE findings in 22.5%, implying clinical suspicion of secondary headache in 192 (83%) patients. Head CT confirmed this hypothesis in 13.5% of these. Secondary headache diagnosis correlated with the presence of «thunderclap» headache and focal neurologic deficits, as red-flags, in detriment of the remaining factors.

Conclusions: This study supports that head CT, performed for headache in ED, presents an unfavorable cost-to-benefit ratio, even when certain «red-flags» are pinpointed. The existent recommendations and criteria should, therefore, be refined and zealously applied in clinical practice. The resort to more sensitive imaging modalities, namely MRI, should be taken into consideration.