

Are red flags useful in management of patients with headache in the emergency room?

D. Vázquez-Justes¹, T. Meritxell², Y. Gallego¹, B. Mariona¹, S. Jordi¹

¹Neurology, Hospital Universitari Arnau Vilanova, Spain

²Medicina Familiar y Comunitaria, Centro Atención Primaria Balaguer, Spain

Introduction: Among headache patients admitted to the emergency room, it is challenging to determine those patients that should be further studied in order to discard underlying serious disease. The aim of this study was to determine whether red flags helped to detect those headaches which belong to the category of secondary headaches. Methods: During one month, we consecutively recorded patients who came to the emergency department of our hospital complaining of "headache". 16 red flags were defined. We recorded details of clinical picture, including presence of red flags, as well as neuroimaging or CSF analysis results. Final diagnosis and destination at discharge were also reviewed. Results: 89 patients were included. Mean age was 42 years (SD +/- 17.5). 63 patients were women (70.8%). 72 (80.0%) patients had at least one red flag. 54 patients (75.0%) were studied with neuroimaging or lumbar puncture. Predictors of neuroimaging use were: thunderclap headache ($p=0.029$), atypical aura ($p<0.01$), vomits/nausea ($p=0.026$) and neurological deficit ($p<0.01$). 5 patients (4.45%) were detected having serious underlying disease: subdural hematoma ($n=2$), subarachnoid hemorrhage ($n=1$), ischemic occipital stroke ($n=1$), viral meningoencephalitis ($n=1$). Red flags associated with underlying disease were: thunderclap headache ($p=0.01$) and neurological deficit ($p=0.01$). Older onset was near significance ($p=0.059$). Conclusions: The prevalence of serious causes of headache in the emergency department was low despite the high prevalence of red flags. Two red flags were associated with the presence of underlying serious cause, neurological deficit and thunderclap headache.