

Yield of brain imaging of neurologically normal children with recurrent headaches

MAS Ahmed and Johnny Canlas

Queen's Hospital, UK

Headache can be the initial presentation of brain tumour and patients with headache could be at risk of brain tumour. Depending on neurological examination, headache diagnosis and the presence of Red Flags (RFS), clinicians may arrange urgent or routine Brain Imaging (BI) of children with headache. During prospective period, we carried out 3 studies examining the yield of BI of Neurologically Normal (NN) children with recurrent headaches. In one study, 710 children with headache were classified according to RFs and headache diagnosis. BI of 389/710 children showed significant abnormalities in only 3 children (0.8%). These three children had unclassified headache and RFs. BI was not arranged for the 211/710 children. None of the 211 children developed RFs or abnormal signs on follow-up for a mean of 13 months. The second study comprised of 101 NN children with headache on waking. BI of all children showed no significant intracranial abnormality. All 101 patients had established diagnosis (67 migraine; 16 TTH, 11 medication overuse headaches and 1 sinusitis). The third study consisted of 119 NN children with recurrent side locked unilateral headache. BI of all children showed no significant abnormalities. All patients had established headache diagnoses.

Conclusion and Recommendations: Our studies and review of literature, disclose the following key observations: 1) Yield of BI is considerably low if the child is NN, has established headache diagnosis and no RFs: 2) Isolated RFs or UH in children with normal neurological examination and established headache diagnoses should not be regarded as worrisome.

Recent Publications:

- Mas Ahmed *et al.*, when to image neurologically normal children with headache. *Acta Paediatrica* 2010, 99: 940-943.
- Mas Ahmed *et al.*, Yield of brain imaging among neurologically normal children with headache on waking or headache waking the patient from sleep. *Eur J Paediatr Neurol*. 2018; 5: 797 – 802.
- Mas Ahmed *et al.*, Side locked headaches. Mas Ahmed *et al.* *Journal of headache and pain*, 2013; 14: 64.
- Tsze D *et al.*, Red flag findings in children with headaches: Prevalence and association with emergency department neuroimaging Cephalalgia 2018.
- Samantha L *et al.*, Occipital Headaches and Neuroimaging in Children. *Current Pain and Headache Reports* 2018; 22: 9.

Neurology 2020 & Cognitive Neuroscience 2020

conferenceseries.com

February 24-25, 2020

London, UK

Biography

MAS Ahmed is a Clinician with expertise in Childhood Headache. He delivers regular childhood headache clinics at the Queen's University Hospital, Essex. He is an honorary Senior Clinical Lecturer at Queen Mary University London. His clinical research has focused upon the assessment of patients with emphasis on the use of brain imaging for the well-being of children with headache and visual aura among patients with paroxysmal disorders such as migraine and syncope. He is active in teaching of medical students and paediatricians. He has received top teacher of the year awards and excellence in medical education award by eminent London Universities.

Notes: