Structural Causes of Migraine-like Phenotype: An Observational Study of Secondary Headaceh Disorders Resembling primary Headache in a Specialized Center

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Introduction and objectives

Secondary headaches presenting with migraine-like (ML) symptoms can mimic primary migraines. We aimed to describe the clinical characteristics of structural causes of ML headaches

Methods

A retrospective review of electronic record from patients treated between January 2020 and July 2025 of those patients meeting the ICHD-3 migraine criteria except an imaging confirmed structural pathology.

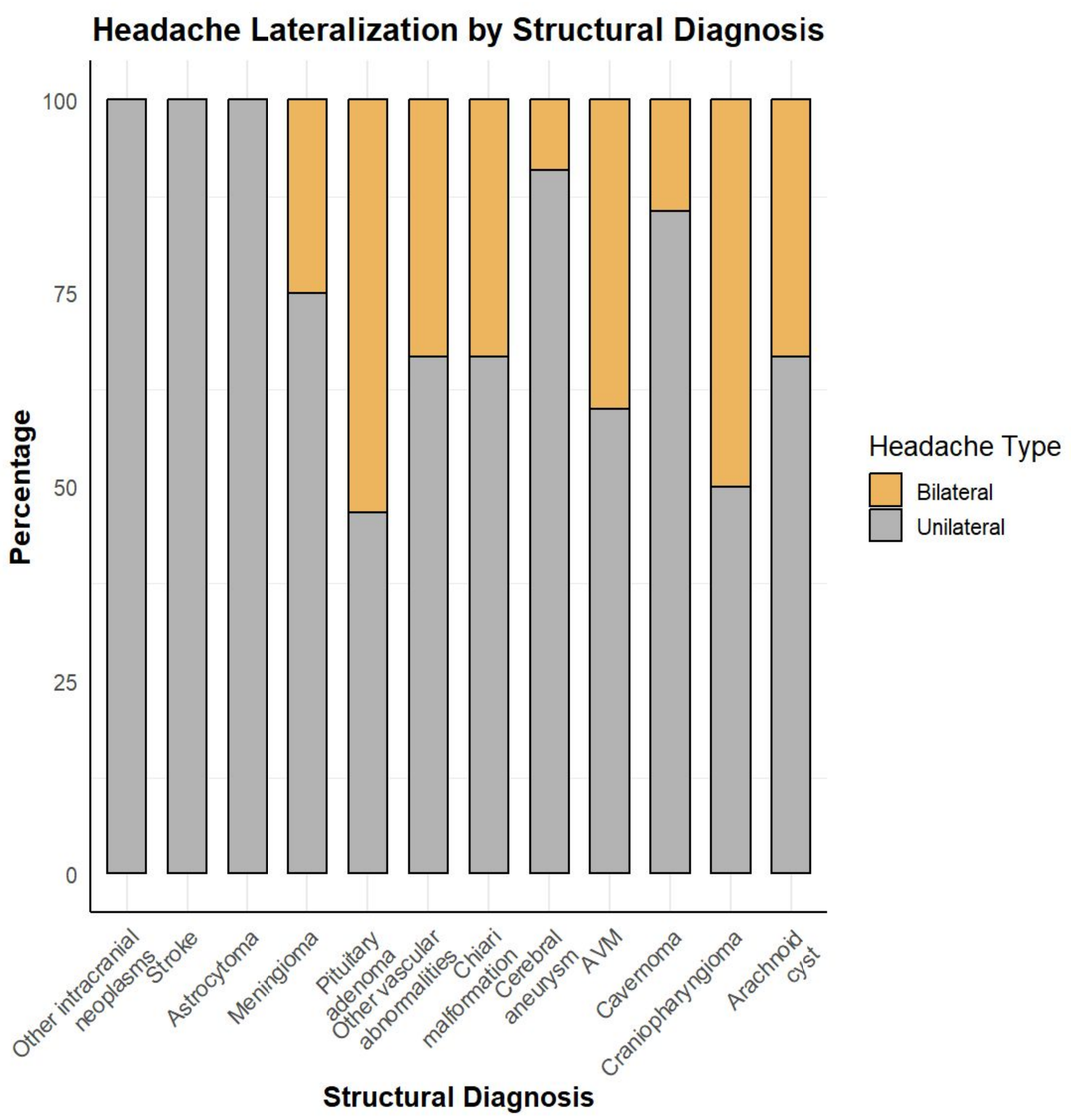

Figure 1. Lateralization according to structural diagnosis.

Results

A total of 75 patients were included. Migraine without aura was reported by 73.3%. Their characteristics are shown in tables 1,2 and figure 1.

Red flags triggering neuroimaging included sudden onset (51%), >50 years old (22%) and neurological deficit.

Variable	Median	IQR
Age (mean, SD)	45.3	12.8
Female sex (n, %)	67	89.3
Headache Intensity	8	7-10
Headache days	3	1-8

Table 1

Structural pathology	n (%)
Pituitary adenomas	20 (26.7%)
Cerebrovascular malformations	16 (21.3%)
Meningiomas	13(17.3%)
Cerebral aneurysms	11 (14.7%)
Arachnoid cysts/Arachnoidocele	7 (9.3%)

Table 2

Conclusions

Pituitary adenomas and cerebrovascular diseases appear to be the most common causes of migraine-like structural headache.