



Presentation Abstract

Session: AOS.604.01-Renovascular and Cerebrovascular Disease; Hypertension

Presentation: 12390 - Understanding Patient Characteristics and Clinical Significance of Headaches in Patients With Fibromuscular Dysplasia: A Report of the United States Registry for Fibromuscular Dysplasia

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Abstract: **Background:** Headache is a common symptom reported among patients with fibromuscular dysplasia (FMD). Patients with headache have not been well characterized and the clinical significance of headaches has not been well established.

Methods: Patients enrolled in the United States Registry from 11 clinical centers were divided into two cohorts: those with headaches and those without headaches. Prevalence and features of headaches were based upon clinician assessment at the time of enrollment in the registry using standard definitions. Cohorts were analyzed across demographics, presenting symptoms and history of vascular events.

Results: Of the 754 patients enrolled, 708 had sufficient data for analysis, 92% of whom were female. A history of headaches was reported in 454 out of 708 patients (64.1%). Migraine type headaches were reported in 33% of patients and 12% reported the need for suppressive medications. The mean age of diagnosis of FMD for those with headaches was 49 versus 57 for those without headaches ($p < .0001$). Patients with headaches reported symptoms of pulsatile/non-pulsatile tinnitus and neck pain more frequently, and were found to have a higher prevalence of stroke/TIA, amaurosis fugax, Horner's syndrome, and cerebrovascular dissection/aneurysm compared to those without headaches (see table). Patients with headaches were less likely to have hypertension compared to those without headaches, $p < .0029$.

Conclusions: Headaches are prevalent in patients with FMD. Patients with headaches are diagnosed at a younger age than those without headaches and present more frequently with concomitant neurological symptoms. In FMD patients with headaches, there is a higher prevalence of stroke/TIA and cerebrovascular dissection/aneurysm. Patients with headaches have a lower prevalence of hypertension than those without headaches. Based on these findings, a low threshold for neurologic evaluation may be warranted in patients with FMD who present with headache.

	Total N (%)	FMD patients with headaches N (%) (1)	FMD patients without headaches N (%) (2)	P-value (1) vs. (2)
Pulsatile Tinnitus	209/628 (33.3)	163/397 (41.1)	46/231 (19.9)	<0.0001
Non-pulsatile Tinnitus	134/614 (21.8)	108/390 (27.7)	26/224 (11.6)	<0.0001
Neck pain	165/617 (26.7)	143/391 (36.6)	22/226 (9.7)	<0.0001
Stroke +/-TIA	131/693 (18.9)	101/441 (22.9)	30/252 (11.9)	0.00039
Amaurosis Fugax	42/684 (6.1)	33/432 (7.6)	9/252 (3.6)	0.033
Horner's Syndrome	44/659 (6.7)	40/415 (9.6)	4/244 (1.6)	<0.0001
Cerebrovascular artery dissection (carotid, vertebral, intracranial arteries)	112/693 (16.2)	98/440 (22.3)	14/253 (5.5)	<0.0001
Cerebrovascular artery aneurysm	56/666 (8.4)	43/423 (10.2)	13/243 (5.3)	0.041

Disclosures: **R Verma**, None; **X. Gu**, None; **E. Kline-Rogers**, None; **H. Gornik**, Summit doppler, Modest,Research Grant; Astra Zeneca, Modest,Research Grant; Flexlife Health, Modest,Ownership Interest; FMD Society of America, Modest,Consultant/Advisory Board; **J. Olin**, None; **E. Kim**, None; **P. Bruenger**, None; **P. Mace**, None; **J. Froehlich**, None.

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