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Trigeminal Autonomic Cephalalgia secondary to Fibromuscular Dysplasia: a case report

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Introduction
Fibromuscular Dysplasia (FMD) is an uncommon disease of medium-sized arteries that is non-atherosclerotic and non-inflammatory. The renal and extracranial carotid and vertebral arteries are most commonly affected. Registry data shows a high prevalence of headache among FMD patients, typically migrainous characteristics. Hypertension is the most frequent manifestation of renal artery FMD. Cerebrovascular FMD may present with transient ischemic attack, stroke, dizziness, neck pain, cervical artery dissection, or pulsatile tinnitus.

Objectives
We report a case of a man with a prior history of high-frequency migraine-like headaches, who subsequently experienced a change in headache pattern. The patient developed daily, unilateral headaches, accompanied by trigeminal autonomic symptoms. During the investigation, the etiology was found to be FMD.

Case Report
A 47 year-old male patient presented a previous history of high frequency headaches, that occurred 4 to 5 times per week, migrainous characteristics, preceded by visual aura. In 2020, there was a change in the headache pattern: an intense headache, worse on the left side, with psychomotor agitation at the peak of the pain, associated with eye tearing, ptosis, and ipsilateral ocular hyperemia, symptoms characteristic of Trigeminal Autonomic Cephalalgia. Between episodes, the patient experienced shadow headaches. The pain was responsive to subcutaneous Sumatriptan. Then, he underwent an intracranial MRI angiography that indicated arterial dissection in the high cervical and intracranial petrous segments, with narrowing of flow and distal supraclinoid reestablishment by the Circle of Willis. Additionally, it displayed a saccular aneurysm in the cavernous segment of the right internal carotid artery, which was laterally deviated. Due to his Systemic Arterial Hypertension history, an investigation of abdominal vascular alterations was conducted, which revealed a saccular aneurysm in the left renal artery and parietal irregularity in the renal arteries. Consequently, he was diagnosed with FMD.

Conclusion
The possibility of FMD should be suspected in a young or middle-aged patient who presents to the headache clinician for evaluation of chronic migraine headache, particularly in the setting of pulsatile tinnitus, early onset hypertension, or a cervical or abdominal bruit. Imaging is necessary to confirm the diagnosis and direct medical management.