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INTRODUCTION

Fibromuscular dysplasia (FMD) is a rare nonatherosclerotic vascular disease that most commonly affects the renal and carotid arteries, often leading to hypertension or stroke [1]. Stenosis, aneurysm, dissection, and occlusion may occur, or the patient may be entirely asymptomatic [1]. FMD occurs most frequently in women aged between 20 and 60, but may also be seen in men or older individuals [2]. While typical manifestations include renovascular hypertension and stroke in young adults, this case highlights an unusual presentation in which vertigo was a potential prodromal symptom, leading to the diagnosis of FMD.

METHODS

A 49-year-old woman, a smoker and mild hypertensive, presented to the emergency department reporting rotatory vertigo that suddenly occurred during work, in association with nausea, profuse sweating, blurred vision, and diplopia. The symptoms spontaneously regressed for about an hour.

RESULTS

Angio-CT showed irregular parietal areas resembling a “pearl necklace” in the distal tracts of the internal carotid arteries, tract M1 of the middle cerebral arteries, and segments V3-V4 of the vertebral arteries. No ischemic brain lesions nor echocardiographic and renal abnormalities were found. Genetic analysis (COL3A1, ACTA2, TGFBR2, MYH11, PDGFRA, EFEMP2) through exome sequencing revealed no pathological variants. Radiological findings, the patient's clinical history, the absence of atherosclerotic lesions, and normal inflammatory markers were consistent with FMD. The patient started antiplatelet therapy with aspirin 75 mg/day, and smoking cessation was advised.

DISCUSSION

This case highlights vertigo as a critical, albeit atypical, prodromal symptom of cerebrovascular fibromuscular dysplasia (FMD), emphasizing the necessity of considering vascular etiologies in patients presenting with acute vestibular symptoms. Despite the absence of ischemic lesions, hypertension, or genetic markers, radiological evidence of the classic “pearl necklace” sign solidified the diagnosis.

CONCLUSION

Clinicians must maintain a high index of suspicion for FMD in cases of unexplained vertigo, particularly in middle-aged women with vascular risk factors, as early imaging can prevent delayed diagnosis and complications. The initiation of antiplatelet therapy and lifestyle modifications, such as smoking cessation, underscores the importance of tailored management in mitigating disease progression.



References

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