Coronary Involvement in MoyaMoya Disease

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Received: 2024-08-09

Accepted: 2024-09-16

Published: 2025-06-30

Introduction: Moyamoya disease is a rare, chronic vascular condition characterized by progressive narrowing of the internal carotid arteries and the circle of Willis (1). While most research focuses on cerebral vessel involvement, less is known about its potential effects on coronary arteries. A few case reports have documented coronary artery stenosis and vasospasm in Moyamoya disease, indicating this is a rare presentation (2,3).

Case Presentation: A 26-year-old woman with a history of Moyamoya disease complicated by recurrent strokes presented with chest pain and syncope. She reported experiencing chest pain for several months, typically relieved by nitroglycerin. However, following her most recent dose, she experienced syncope. The chest pain was primarily exertional but sometimes occurred at rest. An echocardiogram performed at an outside facility one month ago showed no abnormalities. A Coronary CTA also performed at that time demonstrated mild stenosis in the proximal RCA and the LAD. During hospitalization, nitroglycerin was discontinued, resulting in no further syncopal events.

Conclusion: The relationship between Moyamoya disease and coronary artery involvement remains under-researched. In this case, although coronary CTA angiography showed no significant stenosis, the possibility of vasospasm or subtle ischemic changes could not be excluded. A full ischemic workup, including echocardiography and left heart catheterization, is crucial for Moyamoya patients presenting with chest pain. Although involvement of both carotid and coronary arteries is rare, ischemic heart disease should be considered in these patients, even at a young age. Additionally, nitroglycerin's role in managing chest pain in Moyamoya patients requires further study, especially given its potential to exacerbate syncope.

Keywords: Moya Moya, Coronary Artery Disease, Syncope

https://dx.doi.org/10.46570/utjms-2025-1365

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