1133 **Acute Coronary Syndrome due to Papillary Fibroelastoma Detected by Intravascular Ultrasound Imaging**

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Abstract

Background

Papillary fibroelastomas (PFEs) are rare, benign cardiac tumors that predominantly affect the heart valves, most commonly the left-sided valves, including the aortic valve. Although often asymptomatic, PFEs can cause severe complications such as embolic events, arrhythmias, and coronary artery occlusion, potentially resulting in acute coronary syndrome (ACS). In this case, a PFE-induced coronary artery occlusion led to ACS.

Case summary

A 57-year-old woman with no significant medical history presented with acute-onset chest pain and was urgently transferred to our hospital. Electrocardiography on admission showed ST-segment elevation, indicative of ACS. Emergency coronary angiography revealed an intracoronary mass in the left main trunk (LMT). Intravascular ultrasound (IVUS) identified a heterogeneous, mulberry-like mass occluding the LMT. To restore coronary perfusion, aspiration thrombectomy was performed using a suction catheter, followed by balloon angioplasty. Post-procedural IVUS demonstrated persistent mass protrusion from the LMT into the aorta. Given the suspicion of a soft tissue tumor near the coronary artery origin, the patient underwent surgical resection. Histopathological examination confirmed the diagnosis of PFE.

Conclusion

This case highlights the critical role of IVUS in diagnosing rare causes of ACS, particularly coronary artery occlusion due to a PFE at the aortic valve.