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A Clinical Case on Coronary Artery Disease

Prince Stephanie* **and Thais Coutinho**

Division of Cardiac Prevention and Rehabilitation, Canadian Women's Heart Health Centre, University of Ottawa Heart Institute, Ottawa, Ontario, Canada

***Corresponding author:** Prince Stephanie, Division of Cardiac Prevention and Rehabilitation, Canadian Women's Heart Health Centre, University of Ottawa Heart Institute, Ottawa, Ontario, Canada, E-mail: princesawar@ottawaheart.ca

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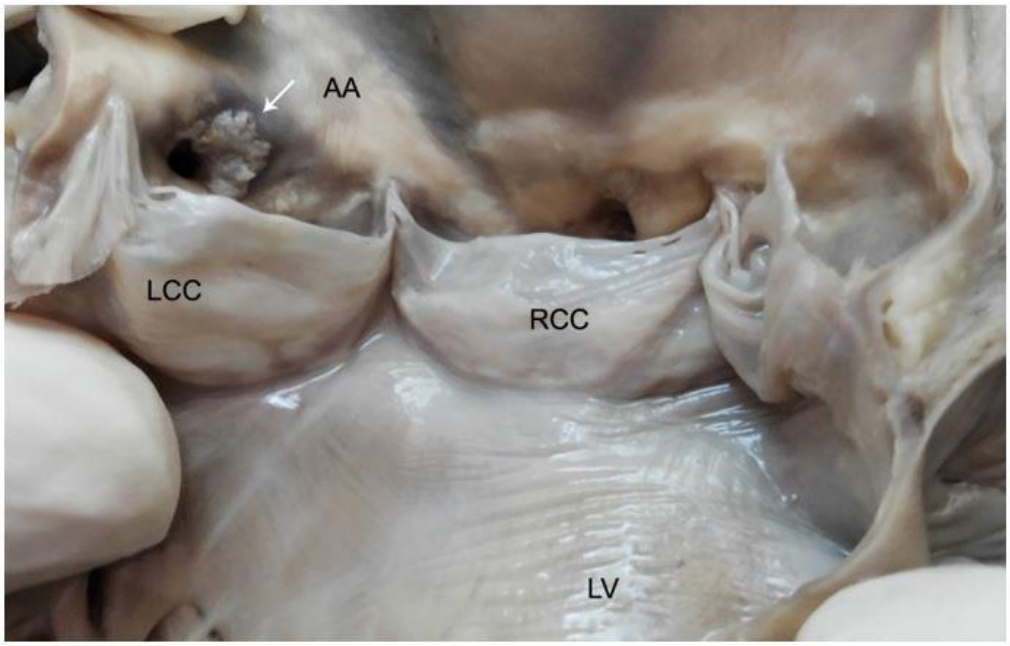

Figure 1: Interior of the hear showing a 0.3 cm papillary fibroelastoma at the inferior rim of the left coronary ostium.

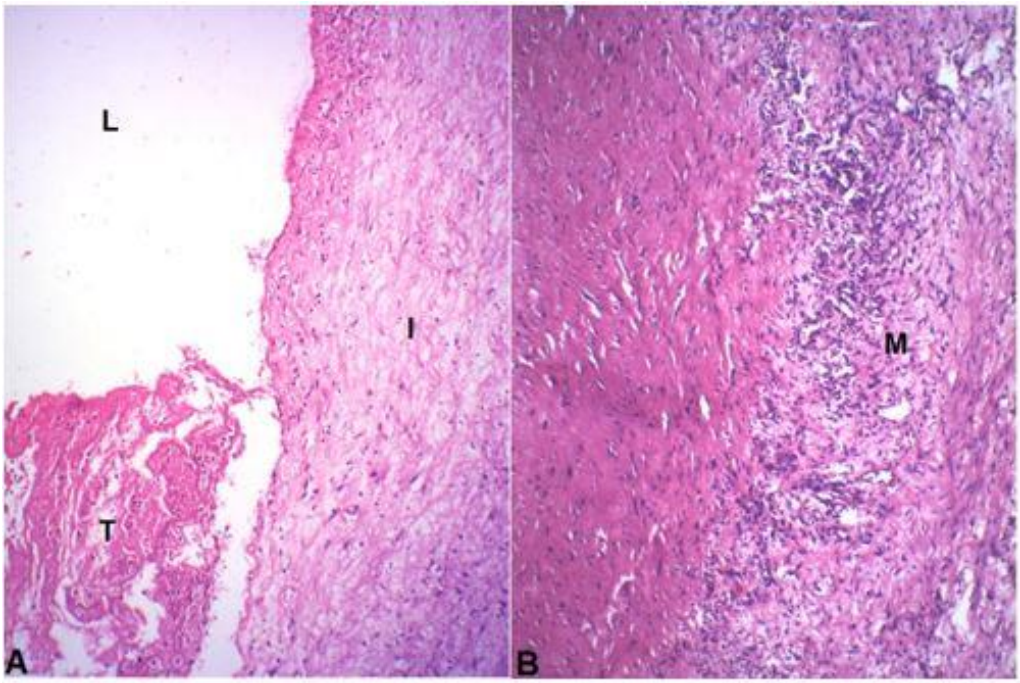

Figure 2: Sections from the left coronary artery. **(A):** Lumen L with thrombus T. Note extreme intimal I fibrocellular thickening (H&E x 250); **(B):** There is marked attenuation of the media M due to transmural destruction by inflammatory cells, lymphocytes and histiocytes and a vague collection of epithelioid cells (H&E x 250).

Clinical Image

Sudden deaths fall within the purview of forensic experts. They are often found to be caused by cardiovascular pathologies, which may be evident or occult. Most sudden cardiac deaths (around 90%) are due to ischemia of the myocardial tissues following coronary artery diseases. A heterogeneous group of non-ischemic myocardial disorders, most producing structural abnormalities are responsible for the remainder; they predominantly represent various cardiomyopathies.

Herein we describe, at autopsy, a case of 40-year-old female, who on 31st March 2019, following an alleged history of chest pain fell unconscious, she was rushed to the casualty of King Edward Memorial Hospital, Mumbai but declared dead on arrival. Autopsy revealed mildly enlarged ventricles of the heart. A 0.3 cm papillary fibroelastoma at the inferior rim of the left coronary ostium was observed, which was suspected to have produced a dynamic obstruction (Figure 1).

Histopathological examination of the left ventricular wall, apex and septum showed similar striking features. The myocardium in all three sections showed mild hypertrophy of fibers with interstitial and perivascular adipose tissue interstitial fibrosis. These findings were suggestive of a left ventricular dominant arrhythmogenic cardiomyopathy. Histopathology also revealed a focus of thrombus throwing into papillae on the luminal aspect of the origin of the left main coronary artery with extensive adventitial fibrosis and prominent lymphoid aggregates (Figure 2).

The cause of death was concluded to be ostitis of the left main coronary artery with mural thrombosis and associated with arrhythmogenic cardiomyopathy, an extremely rare incidence.