Complete Occlusion of the Left Main Coronary Artery Trunk

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A 28-year-old woman was admitted due to cardiogenic shock. An electrocardiogram showed ST segment elevation in I, aVL, and V2-V6 (Picture 1). Urgent coronary artery angiography showed complete occlusion of the left main coronary artery trunk (LMT; Picture 2). The right coronary artery was normal and had no collateral supply to the left coronary artery. A stent was inserted into the LMT. The peak creatine kinase was 33,820 IU/L. She died on the forth hospital day. The postmortem examination revealed a transmural hemorrhagic infarction over a wide range of the left ventricular wall (Picture 3). No atherosclerosis or thrombus were found in the coronary arteries including the LMT. Zimmern et al. (1) reported the prevalence of complete occlusion of the LMT to be 0.06% in patients who underwent coronary angiography. This type of occlusion is particularly rare in a young patient. This patient showed no evidence of coronary atherosclerosis or any other causative conditions including collagen disease and coagulation disorder.

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Reference