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CARDIOVASCULAR FLASHLIGHT

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Lines of Zahn in coronary artery thrombus

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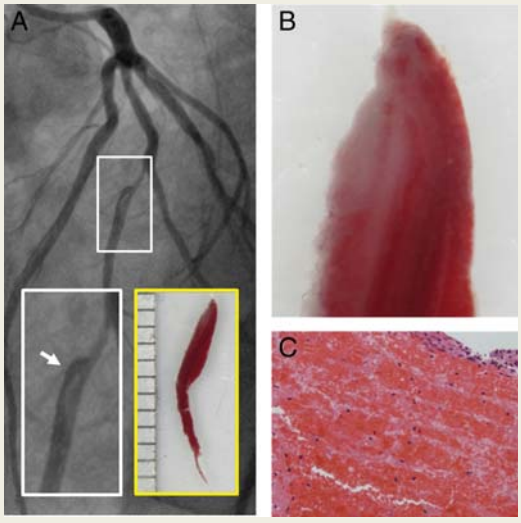
A 46-year-old female presented with troponin-positive acute coronary syndrome and lateral ischaemic changes on electrocardiograph. Coronary angiography revealed a critical stenosis distal to the bifurcation of the intermediate coronary artery, with a crescentic lesion tethered to its distal end suggestive of a thrombus (*Panel A*, white inset, white arrow). Aspiration of the thrombus was performed using an Export® catheter (Medtronic) and a sickle-shaped thrombus was retrieved (*Panel A*, yellow inset). Angioplasty of the stenotic segment was performed with insertion of a drug-eluting stent (Boston Taxus®, 2.75/12 mm).

Macroscopically, the thrombus consisted of alternating white and red bands typical of Lines of Zahn (*Panel B*). This feature was also demonstrated on histology examination of the specimen (*Panel C*). Lines of Zahn are characteristic of thrombus formed at the site of rapid arterial blood flow, with laminations produced by successive deposition of platelets and fibrin (pale layers) alternating with red blood cells (dark layers). This thrombus was likely to be associated with high-velocity blood flow produced by the upstream stenotic lesion.



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