Extensive right coronary artery thrombosis

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Figure 1. A) Right coronary artery, left anterior oblique projection (45°), with extensive thrombosis from just beyond the right ventricular branch into the posterolateral branch. B). Same artery as in A, now right anterior oblique projection (-30°).

A 65-year-old man presented with a non-ST-elevation acute coronary syndrome. His medical history was unremarkable. Apart from a brother, who sustained a myocardial infarction at the age of 40, no cardiovascular risk factors were present. Coronary angiography revealed normal left anterior descending

and circumflex arteries. The right coronary artery was subtotally occluded with an extensive thrombus running into the posterolateral branch (figures 1A and B). Despite appropriate medical treatment, intermittent chest pain persisted. The patient underwent a percutaneous coronary intervention with mechanical removal of the thrombus by aspiration followed by balloon dilatation. During the 12 hours preceding this procedure a glycoprotein IIb/IIIa receptor antagonist was continuously infused, while aspirin, clopidogrel, and a low-molecular-weight heparin (LMWH) were also administered. The intervention was only partially successful with limited restoration of right coronary perfusion resulting in a TIMI I flow. Following the procedure, intermittent chest pain persisted initially but subsided after a few days of continued administration of aspirin, clopidogrel and an LMWH.

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Acute coronary syndromes result from local intracoronary thrombus formation. Coronary angiography in our patient demonstrated a rather unusual extensive intracoronary thrombosis, a finding that remains a therapeutic challenge. Despite advances in interventional technology and adjunctive pharmacology, these lesions represent a substantial risk for short- and long-term complications. Periprocedural myocardial infarction, distal embolisation leading to no re-flow and long-term reocclusion can occur.¹ While there is no evidence-based algorithm available for the treatment of (extensive) coronary thrombosis, a variety of techniques have been applied, including balloon

angioplasty and stent placement preceded by thrombus aspiration,² intracoronary thrombolytic treatment,³ excimer laser coronary angioplasty,⁴ bypass surgery or medical treatment including glycoprotein IIb/IIIa receptor antagonists.⁵ Despite these developments, the results are in general disappointing, as exemplified by the above-presented case. This illustrates the need for further research in order to develop more efficient and effective medical and/or interventional strategies for the treatment of (extensive) coronary artery thrombosis. ■

In this section a remarkable 'image' is presented and a short comment is given.

We invite you to send in images (in triplicate) with a short comment (one page at the most) to Bohn Stafleu van Loghum, PO Box 246, 3990 GA Houten, e-mail: l.meester@bsl.nl.

'Moving images' are also welcomed and (after acceptance) will be published as a Web Site Feature and shown on our website: www.cardiologie.nl

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