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IMAGES IN CARDIOLOGY

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Spontaneous coronary vasospasm in the catheterisation laboratory: prompt resolution after atropine injection

A 56-year-old woman was referred to us for angiography because of recent inferior wall myocardial infarction. One week before, she had sustained an acute inferior wall myocardial infarction for which she had received intravenous streptokinase. Her hospital course was uneventful. Risk factors were smoking and premature menopause. Physical examination was unremarkable.

After selective angiography of the left coronary system, which was normal, she developed nausea, profuse sweating, a sinus bradycardia of 25 beats/min, hypotension with a blood pressure of 60/30 mm Hg and chest pain. ST segment elevation was seen in monitor lead II. The patient was given 1 mg intravenous atropine. Volume loading with normal saline was started. At the same time, right coronary angiography was performed and a total obstruction was seen in the mid-right coronary artery (panel A). At about 1 min after giving atropine, all signs and symptoms resolved and control right coronary injection showed no obstruction at all (panel B). The patient was sent to bed and metoprolol was replaced by diltiazem.

In the literature, there is only one report in which atropine reversed spontaneous coronary vasospasm and haemodynamic decompensation, which were possibly due to vagal reaction in the catheterisation laboratory as our case.

(A) Total occlusion of mid-right coronary artery. Left anterior oblique projection. (B) Resolution of the spasm after intravenous atropine. Left anterior oblique projection.

In that case, in contrast with ours, the spasm was multivessel, and after spasm resolved, it has been seen that diffuse atherosclerotic lesions were present.

From this case we suggest that, in the presence of vagal symptoms and coronary artery occlusion, atropine might be useful to rule out coronary vasospasm.

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