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IMAGES IN CARDIOLOGY

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Aberrant right coronary artery collaterals to pulmonary vascular bed

This image shows a right coronary angiogram in a 75 year old woman referred to our chest pain clinic with episodes of chest pain of anginal character, lasting five minutes and relieved by glyceryl trinitrate spray. Her chest pains were initially exertional, but more recently also at rest.

She was an ex-smoker of 18 years with hypercholesterolaemia. She was not diabetic or hypertensive, and never had a stroke. There was no family history of premature coronary heart disease.

On examination, her blood pressure was 102/70 mm Hg, and her pulse was regular at 72 beats per minute. Jugular venous pressure and carotid pulse character were normal. Cardiac apex was undisplaced, heart sounds were normal, and the chest examination normal. The resting ECG showed sinus rhythm and was normal. The chest x ray was normal. Treadmill exercise test was negative for coronary ischaemia but with a submaximal heart rate increment.

Coronary and left ventricular angiography showed normal left ventricular function, and the coronary circulation was free of irregularity and obstruction. The right coronary injection revealed a highly abnormal and unusual large proximal branch which supplied a network of small collateral vessels, which then anastomosed with a sizable segment of pulmonary artery branches in the right upper lobe.

Our clinical suspicion of an acquired collateral circulation between the pericardium and the lung, probably related to previous inflammatory disease and with pericardial-pleural adhesions, was supported by subsequent computed tomographic scanning of the thorax (because of admission for breathlessness one year later) which showed geographic ground glass shadowing and airspace consolidation air bronchograms, consistent with fibrosing alveolitis.

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