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IMAGES IN CARDIOLOGY

Anomalous origin of the left coronary artery from the pulmonary artery

The figure shows a digitally subtracted right coronary angiogram in the posteroanterior projection. The patient was a 42 year old woman who had had exertional breathlessness for 18 months and mild angina for four months. She had a continuous murmur. Echocardiography was normal and an exercise test showed

electrocardiographic features of ischaemia at low workload.

The Sones coronary catheter is seen in the ascending aorta with its tip in the right coronary ostium. The right coronary artery is enormous, with extensive tortuous collaterals filling the entire left system and draining into the pulmonary artery, which is also opacified. There was no origin of the left coronary artery from the aorta.

This case is an example of anomalous origin of the left coronary artery from the pulmonary artery. It occurs in 2.5 to 5 per 100 000 live births¹ and was first described in 1886 and then as a syndrome of neonatal angina, infarction and congestive cardiac failure in 1933.² Eighty five percent of patients with this anomaly die in childhood. It is rare in adults. Forty four cases surviving to adulthood were described in 1977³ with 41% being diagnosed post-mortem. The oldest age at diagnosis was 49. Treatment is by surgery, for which a variety of procedures have been described. Before operation was possible 80 to 90% of those surviving to adulthood died suddenly, at a mean age of 35 years. In this case the pulmonary origin was ligated and oversewn. Because of the very extensive collateral supply, grafting was not thought necessary.

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