Somerville J, Grech V. The chest x-ray in congenital heart disease 6. Images Paediatr Cardiol Volume 16(3);2014:4-5.

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MeSH
Coarctation of the aorta. Chest x-ray.

This patient (born in 1983) had presented in childhood with coarctation. He had had subclavian flap repair at 1½ years of age. He was reviewed at the Grown Up Congenital Heart Disease Clinic last year and had normal right arm pulse and blood pressure and normal femoral pulses. The left arm pulses were very difficult to palpate.

A routine CXR (figure 1) showed a normal sized heart with the contour of possible left ventricular hypertrophy. Normal pulmonary arteries and lungs. In the region of the aortic knuckle, there is a prominent bulge high up at the level of clavicle. Within it is another straight shadow. There are two clips. The upper one is possibly across the left subclavian artery.

The question instantly arises - is this an aneurysm? This is a potential and dangerous long term complication and must be excluded with urgency.

A CT scan will elucidate the anatomy but incurs a substantial dose of radiation. The imaging of choice is an MRI. In such cases, it is also important to obtain a copy of the surgical notes as these will help with further management.
Figure 1: Potential aneurysm in a grown up patient with a history of coarctation with subclavian flap repair in childhood.