IMAGES **in PAEDIATRIC CARDIOLOGY**

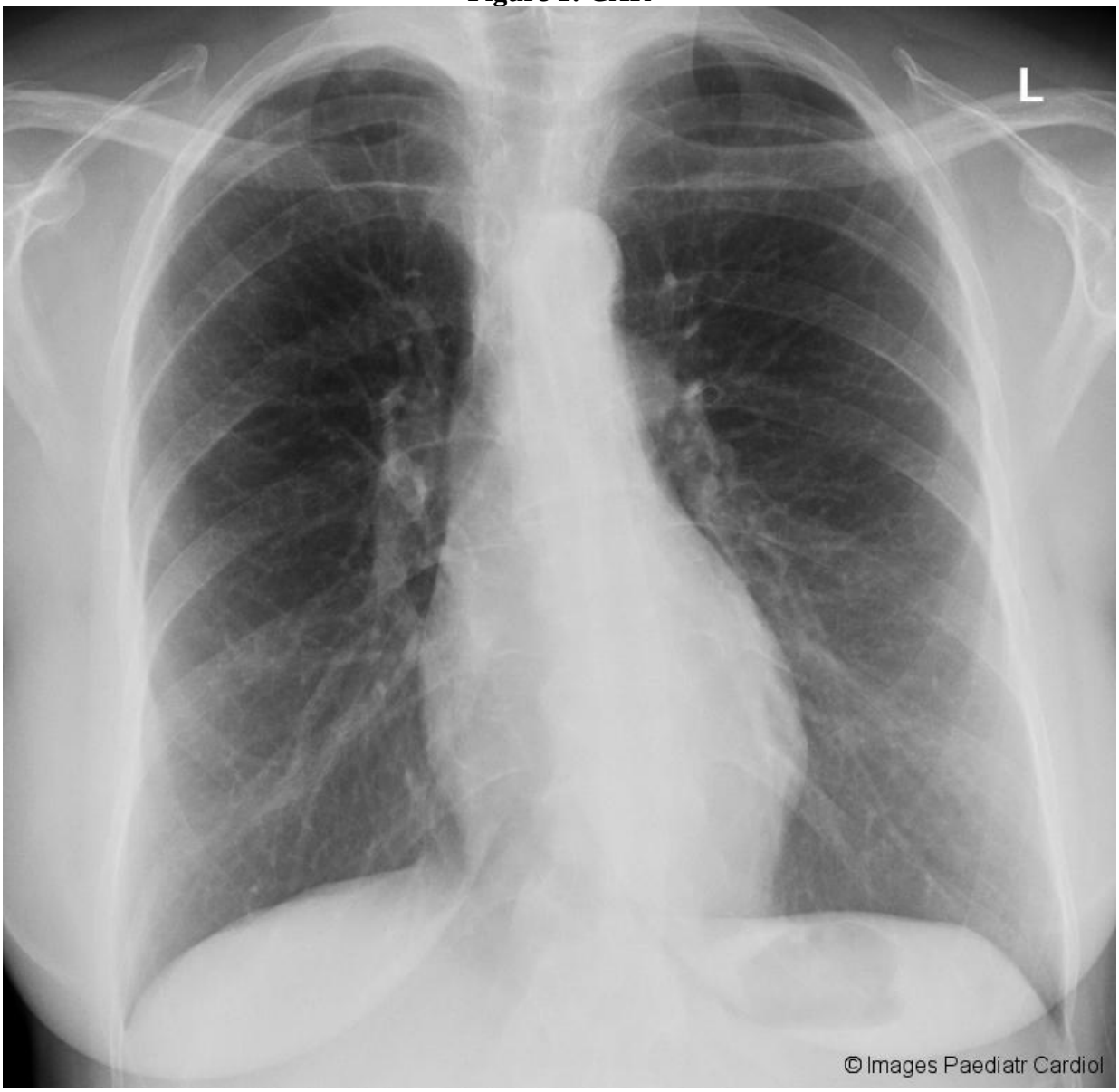
Somerville J, Grech V. The chest x-ray in congenital heart disease 5. Images Paediatr Cardiol Volume 15(2);2013:1-2
Grown Up Congenital Heart Clinic, Mater Dei Hospital, Malta

The patient in question was a woman aged 56 years who was sent to a cardiologist with left chest pain that was of non-cardiac origin.

Apart from a loud P2, for which there was no obvious reason, nothing was found on clinical examination. The chest X-ray was reported as normal (figure 1).

Closer scrutiny by the clinician shows normal sized heart with an unusual bulge on the left cardiac border.

Figure 1: CXR



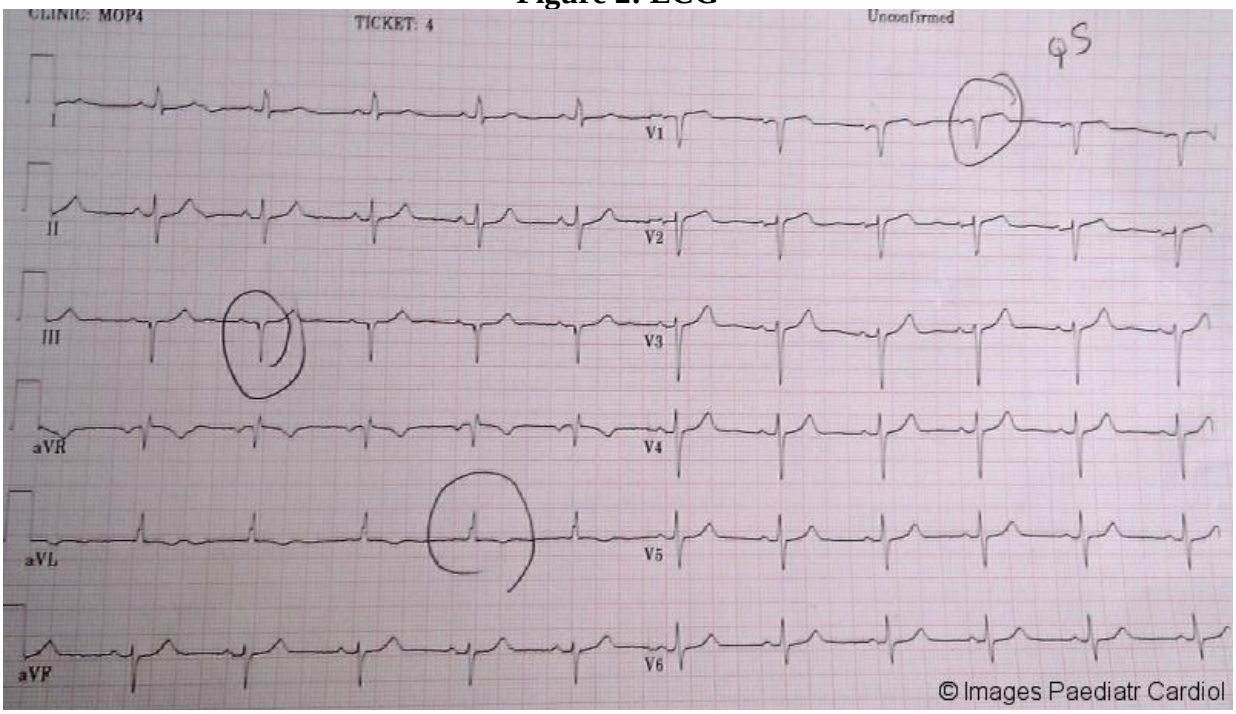
A closer look shows the left pulmonary artery higher and larger than the right but no sign of the main pulmonary artery which should be bulging in the pulmonary. In fact, too much left pulmonary artery is seen. This raises the possibility that the main pulmonary artery is in the wrong place, either medial to the aorta or behind it.

When looking for the ascending aorta on the left border of the upper mediastinum on the left, one sees a second shadow parallel to the denser mediastinal edge. This runs in to the left aortic knuckle in the normal position.

Could this patient have congenitally corrected transposition, perhaps with trivial pulmonary valve stenosis (bicuspid valve)?

The electrocardiogram is helpful having seen the chest X-ray. There is a QS pattern in V1 with an upright T wave in lead V1 (figure 2). This can occur in infarction but would extend across the anterior chest leads. But in this case this inferior deflection appears in leads III and aVF. With infarction, the striking and diagnostic lead aVL has an rsr such as one sees in V1 normally.

Figure 2: ECG



This is classical congenital corrected transposition without other anomalies. If one sees the ECG first, one is suspicious of the diagnosis and it explains the chest X-ray, but it is easier when the X-ray seen first.

Contact Information

Victor Grech
victor.e.grech@gov.mt