

An Unusual Case of Pre-Excitation

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Case Report

This is a case of a 62 year old gentleman, with a history of ischemic heart disease (with coronary artery bypass grafts) and cardiac dextroversion.

A standard 12-lead ECG reveals delta waves suggestive of pre-excitation. The R waves are dominant in the chest leads, which is opposite of what is expected in a patient with a heart in the right hemithorax, as usually one would expect absent R wave progression. This suggests that the net vector of ventricular depolarisation is occurring from posterior to anterior and from right to left, implying that the right ventricle is being pre-excited and that the accessory pathway should be on the right side of the heart.

The vector of the inferior leads (II, III, aVF) remains relatively unchanged in dextrocardia/dextroversion. The delta wave in our patient's ECG is negative in the inferior leads, which means that the accessory pathway must be posterior. Therefore, our patient has a right posterior accessory pathway, which is statistically most likely to be a right posteroseptal pathway. An EP study would be necessary to confirm this.