# Left Bundle Branch Block and Investigation for cardiac ischemia.

It is general understood that left bundle branch block makes conventional ECG-based stress testing for ischaemia uninterpretable. So is a sestamibi the answer?

Left bundle branch block may also cause “false negative” findings on sestamibi. Why? The inco-ordinate ventricular contraction due to delayed conduction means that part of the left ventricle will still be electrically in systole (initially) when the rest of the ventricle is in early diastole. Coronary perfusion only occurs during diastole. Hence they area of the ventricle receiving delayed conduction will have delayed coronary artery perfusion. On sestamibi imaging, this may be confused with the appearance of ischaemia due to coronary artery disease. This phenomenon does not make sestamibi a worthless investigation for ischaemia, however it increases the difficulty of interpretation. Similarly, ventricle movement assessed on cardiac echo in the context of conduction defects may give an appearance that could be confused with coronary artery ischaemia. The ‘take-home’ message is that no test can be interpreted in isolation of the clinical details of the patient, and confusing tests need to be interpreted with caution.