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PATIENT PREFERENCE IN MYOCARDIAL PERFUSION IMAGING - COMPARISON BETWEEN COMPUTED TOMOGRAPHY, MAGNETIC RESONANCE IMAGING, INVASIVE CORONARY ANGIOGRAPHY WITH FRACTIONAL FLOW RESERVE, AND POSITRON EMISSION TOMOGRAPHY

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Introduction Myocardial perfusion can be assessed using a variety of imaging modalities, but little is known regarding patient preference or acceptability. This study assessed patient experience of myocardial perfusion imaging using computed tomography (CT), magnetic resonance imaging (MRI), invasive coronary angiography (ICA) +/- fractional flow reserve and oxygen-15 positron emission tomography (PET/CT).

Methods 31 patients underwent CT as part of a research study and completed questionnaires. Of these 28 underwent ICA, 26

MRI and 14 PET/CT. Patients rated concern, comfort and satisfaction on a 5 point Likert scale. Pain during/after investigations were assessed and overall preferences and comments were recorded.

Results Prior to CT 71% had no concern, compared to 69% for PET/CT, 50% for MRI and 39% for ICA. The main reasons cited for concern were claustrophobia for MRI and potential side-effects for ICA. Patients reported similar comfort and overall satisfaction for all modalities. Pain during the investigation was slightly lower for ICA compared to MRI or CT, but this difference was not statistically significant. However, pain after the investigation was significantly higher for ICA compared to MRI or CT ($P < 0.001$). CT was the preferred modality for 42%, compared to ICA for 31%, MRI for 12% and PET/CT for 4%. All patients would be willing to undergo CT or PET/CT again compared to 96% for MRI and 79% for ICA.

Conclusion Although overall satisfaction and comfort were similar for all imaging modalities, ICA was associated with more discomfort after the procedure and MRI with more concern regarding claustrophobia.