Abstract: **P163**

**CT coronary angiography (CTCA) vs myocardial perfusion imaging (MPI) in cardiac chest pain evaluation in patients with diabetes and an intermediate probability of coronary artery disease (CAD)**

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**Topic(s):**
Cross-Modality and Multi-Modality Imaging Topics

**Citation:**

Background & Introduction:

The 2016 update to the NICE guideline for the investigation of new onset stable chest pain recommends use of CTCA as first line investigation in intermediate risk patients.

Purpose:

To compare imaging modality (CTCA and MPI) in intermediate risk diabetic and non-diabetic patients.

Methods:

Retrospective review of patients referred to the rapid access chest pain clinic over a 12 month period. Individuals with intermediate risk and subsequent imaging utilised were determined. The diagnostic yield of CTCA and MPI in patients with diabetes was compared. Average Q-risk2 scores for population was calculated.

Results:

Total number of patients referred: 1376
Patients with intermediate risk: 545
Patients with diabetes: 163

Please see Table below

- Chi-squared analysis CTCA vs MPI in diabetics: Chi-squared statistic 4.87, p-value 0.03. Chi-Squared with Yates correction = 4.07 p-value 0.044

- 5 of the 20 patients with positive CTCAs went on for angiography, with 3 proceeding to percutaneous coronary intervention (PCI), and 2 for coronary artery bypass grafting (CABG). 2 had further functional testing in the way of MPI.

- 13 of the 35 patients with positive MPIs went on to angiography, with 7 proceeding to PCI, and 3 for CABG.

Conclusions:

- MPI is more useful than CTCA in excluding functionally significant CAD in intermediate risk patients with diabetes.
Abstract: CT coronary angiography (CTCA) vs myocardial perfusion imaging (MPI) in cardiac chest pain evaluation in patients with diabetes and an intermediate probability of coronary artery disease (CAD).

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Results:

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes (163)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Q-risk2 - 29.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive CTCA/Total CTCA</td>
<td>20/42</td>
<td>47%</td>
</tr>
<tr>
<td>Positive MPI/Total MPI</td>
<td>35/121</td>
<td>28%</td>
</tr>
</tbody>
</table>

Conclusions:

- From our study, it is not possible to comment on which imaging modality is the best gatekeeper for invasive coronary angiography.

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