

## AB061. 173. What is the relationship between mesenteric adiposity and coronary artery disease?

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**Background:** Previous analysis of abdominal computed tomography (CT) images have demonstrated that a larger “visceral” fat area is associated with coronary artery disease. However, this area was previously defined as everything within the abdominal cavity, but as the mesentery has now been reclassified as an organ this association needs to be re-evaluated. We aim to further evaluate the link between “visceral” adiposity and coronary artery disease using an anatomically accurate quantification of “visceral” adiposity.

**Methods:** Within a single centre, a retrospective analysis was undertaken on 190 CT Abdomen images of patients

who underwent both a CT abdomen and a coronary angiogram within a 12-month period. Using a previously validated method, area quantification of the CT images using McKesson Study Share and OsiriX Lite v8.0 were undertaken at the level of the L4–5 intervertebral disc space.

**Results:** Looking specifically at the mesenteric component of visceral adiposity, the absolute mesenteric area is not associated with coronary artery disease ( $P=0.452$ ). However, the ratio of mesenteric to subcutaneous fat was higher in those patients with coronary artery disease (0.42) compared to those with normal coronary arteries (0.31,  $P<0.001$ ). This ratio of mesenteric to subcutaneous fat was a better predictor of coronary artery disease status ( $OR=16.91$ ) than a ratio that included total intra-abdominal to subcutaneous fat ( $OR=7.39$ ).

**Conclusions:** The data support a relationship between relative increases in mesenteric fat and development as well as severity of coronary artery disease.

**Keywords:** Mesentery; adiposity; coronary; artery

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