

# Role of multidetector computed tomography in diagnosis acute aortic syndrome

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Acute aortic syndrome (AAS) is the modern term that includes aortic dissection, intramural hematoma (IMH), and penetrating atherosclerotic ulcer (PAU and aortic rupture); trauma to the aorta with intimal laceration may also be considered.

The common denominator of AAS is a disruption of the media layer of the aorta with bleeding within IMH, along the aortic media resulting in the separation of the layers of the aorta (dissection), or transmurally through the wall in the case of a ruptured PAU or trauma.

Multidetector computed tomography (MDCT) is a gold standard due to its intrinsic diagnostic value; its performance approaches 100% sensitivity and specificity, and it is accepted

as the first-line modality for the suspected acute aortic disease. MDCT allows an early recognition and characterisation of AAS as well as the presence of any associated complications.

Long-standing arterial hypertension, variety of genetic disorders with altered connective tissues, vascular inflammation, deceleration trauma and iatrogenic factors are the most prevalent risk conditions. Patients with AAS often present in a similar fashion, regardless of the underlying condition of dissection, IMH, PAU or contained aortic rupture. Pain is the most commonly presenting symptom of acute aortic dissection and should prompt immediate attention, including diagnostic imaging modalities (such as multislice computed tomography, transoesophageal ultrasound, or magnetic resonance imaging).

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