Non-coronary contrast CT scan in detection of myocardial Infarction

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INTRODUCTION

Non-coronary contrast CT scan may have utility in early detection of acute myocardial infarction (AMI), especially in detecting incidental cases where other diagnoses are deemed to be more clinically likely.

METHODS AND RESULTS

- Five patients with chest pain (typical and atypical) were selected using retrospective reporting of AMI from the cath lab.
- All the patients with a normal troponin-I and ECG on initial testing.
- The cases are described as A-E in [Table 1], with corresponding CT images in [Figure 1].

- An acute MI can be detected on contrast-enhanced chest CT as areas of lipomatous metaplasia, myocardial calcifications, focal areas of wall thinning, aneurysm formation, perfusion anomalies and LV thrombii [1].
- In a retrospective review conducted by Gosalia A et al. [2], the sensitivity of CT for detecting an acute MI in this series was 83%, the specificity was 95% (n=69).

DISCUSSION

[Table 1]: Cases A-E with chest pain M=male, CP=chest pain, LV=left ventricle, CTAc= non-coronary CT angiography chest, r/o AD=ruled out aortic dissection, LAD=left anterior descending, RCA=right coronary artery, OM=Obtuse marginal, PS=Proximal segment, D1=Diagonal branch.

CONCLUSION

- A high index of suspicion is warranted, especially in interpreting the CT scans as this could have life-saving ramifications.
- However, confirmatory testing is always the norm and troponin-I assays and subsequent angiography may be warranted.

REFERENCES