

Heart-type fatty acid binding protein is a sensitive biomarker for early AMI detection in troponin negative patients: a pilot study

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Abstract

Background: Early detecting AMI in individuals presenting to the ED with chest pain continues to be a challenge. cTn is the gold standard for AMI diagnosis but early presenters (<1 hours from symptom onset) maybe cTn negative on admission. We analysed the diagnostic value of h-FABP and hs-TnI in patients presenting to ED with chest pain and no cTnI elevations.

Methods: 28 AMI and 28 no-AMI individuals both presented to ED within one hour from pain onset were included. Blood donors were analysed for h-FABP cut-off identification. Among AMI patients, 55% were positive for h-FABP and 34.6% were positive for hs-TnI ($p = .015$), thus 21% were positive only for h-FABP. The diagnostic accuracy was assessed by ROC curve. h-FABP showed a higher sensitivity but lower specificity than hs-TnI.

Conclusions: In our study, the frequency of h-FABP positivity among AMI patients was higher than that of hs-TnI, which would have missed six of them; however, hs-TnI AUC was superior to that of h-FABP. These preliminary findings might confirm that h-FABP may be a good candidate for AMI rule-in/rule-out within the ED context.