Reviewer’s report

Title: Feasibility and accuracy of bedside transthoracic echocardiography in diagnosis of acute proximal aortic dissection

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Reviewer: Mauro pepi

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This study evaluate retrospectively the accuracy of tranthoracic echo (TTE) in the diagnosis of type A aortic dissection. The retrospective analysis included 178 pts referred to cardiac surgery and compared TTE with cardiac CT.

GENERAL COMMENTS

The study is interestering and well written and confirm data on the importance of TTE as first diagnostic step in the suspicious of aortic disseciton. The main limitation is that cases included in the study were all affected by the disease and therefore the reptrospective analysis has an obvious bias. Moreover several methodologicla limitations are present.

SPECIFIC COMMENTS

Introduction

Do not insert a subheading in the introduction (goals of the study may be deleted)

Methods:

a) The Authors stated that all examinations were performed by experts (cardiologists on call). Data concerning the accuraracy were however evaluated based on the retrospective analysis of the two Authors. Why reports already performed by the on-call cardiologists have not been included in the analysis? Positive findings (all patients had dissection) in terms of flap have been always reported also in the emergency examination? These data may add important information regarding the value and accuracy of TTE, while the retrospective analysis is obviously influnced since all cases had dissection.

b) Cardiac CT: cardiac CT was performed in 90% of cases; please specify this point.

c) Introaperative “image”: this term is confounding; please change into “intraoperative inspection or finding”

Results

a) Cardiac CT 100% accuracy: 1 patient had not aortic disseciton, therefore caridac CT could not have 100% accuracy, on the contrary thsi case had not positive TTE. Please revise this discrepancy.

b) TEE: TEE is considered mandatory in the pre-operative and monitoring and immediate post-operative phases of cardiac surgery in aortic disseciton. Why
Authors did not include TEE findings (also considering the large number of spering techniques) in the analysis?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have no conflict of interest