Reviewer’s report

**Title:** Cardiac tamponade: contrast reflux as an indicator of cardiac chamber equalization

**Version:** 1  **Date:** 5 February 2012

**Reviewer:** Folkert F.J. meijboom

**Reviewer’s report:**

Discretionary revisions.

An elegant, well written case report of Nauta et al. Because of the increased role of CT as first in line diagnostic modality at the ER, attention to what exactly happens with injected contrast may lead to improved diagnostic accuracy in quite a number of patients. It is therefore of direct relevance for clinical practice.

Nauta et al correctly state that contrast reflux in ICV also happens in other disease states which affect right ventricular pressures, like RV systolic dysfunction in itself, e.g. after in RV infarction, due to pulmonary hypertension or in case of severe tricuspid regurgitation. The combination of pericardial effusion and the finding of contrast reflux will point at tamponade as being responsible for this reflux, but are ther other details of the contrast reflux that would discriminate between e.g. severe traumatic tricuspid regurgitation and cardiac tamponade? Is timing in the cardiac cycle of the reflux different? In TR it is an exclusive systolic phenomenon; how is this in tamponade? I would expect the most prominent reversal at the moment of atrial contraction at the end of diastole. Is this the case and can teh authors comment on this?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Declaration of competing interests:**

I declare that I have no competing interests regarding all the above.