Reviewer's report

Title: Association of iron overload based quantitative T2* MRI technique and carotid intima-media thickness in patients with beta-thalassemia: A cross-sectional study

Version: 1 Date: 5 October 2010

Reviewer: ELISABETTA BIANCHINI

Reviewer's report:

This study aimed to investigate the relationship between body iron status and carotid Intima-Media Thickness (IMT). For this purpose, liver iron load was assessed by quantitative T2*MRI technique and IMT by ultrasound scanning in 119 patients (age range 10-50 years).

The authors concluded that this study identified an association between body iron status and carotid IMT.

This manuscript addressed an interesting problem and it can be considered for publication in "BMC Cardiovascular Disorders ". I would suggest some discretionary (but important) corrections that could improve the quality of the final paper (as reported in subsequent “Discretionary Revisions” section).

Discretionary Revisions:

1) Page 9, “Carotid Ultrasound” section: please specify how IMT was assessed (was it measured automatically or manually)?
2) Page 9, “Carotid Ultrasound” section: specify ultrasound equipment setup during acquisition (i.e. gain, depth etc).
3) Page 13, “Discussions” section: in the limitations also the relative low sample size should be included.
4) Table 3 should me made clearer (i.e. add the p values).
5) References regarding IMT might be substituted by more recent ones.
6) Tables’ labels should be reviewed.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests