Author's response to reviews

Title: Risk factors of one year increment of heart calcifications and survival in hemodialysis patients

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Author's response to reviews: see over
Dear Sir,

enclosed is the revised manuscript “Risk factors of one year increment of coronary calcifications and surviva in hemodialysis patients”.

A point by point response to the reviewers is enclosed. Changes to the manuscript are shown by italics.

This study, due to its observational nature, has not required ethical approval.

Best regards,

Giorgio Coen, MD

Referee n° 3

1. The description of the CT examination is still not accurate. A 64-MDCT consists of 0.6 mm detectors, not 2.5 mm detectors. Thus, the detector width is also smaller. The description needs to be checked with a CT expert.

In spite of the fact that 64-MDCT consists of 0.6 mm detectors, in our study the employed thickness was 2.5 mm, as adapted to the original protocol proposed by Agatston for the ultrafast computed tomography (Agatston AS et al. J Am Coll Cardiol 1990, 15, 827-832)

2. Nowadays, generally prospective ECG triggering is applied for coronary calcium scoring, because of the much lower radiation dose. Please mention in the limitations that you used retrospective gating with the associated higher dose, and the reason.

For the evaluation of calcium scoring a retrospective technic was employed, due to frequent heart rhythm disorders and the problems in administering beta-blockers. This is mentioned in the limitations.

Referee n° 4
1. OK for the diabetes. It could appear in the new version. This answer does not answer the issue of the vintage. Basal Agaston score is associated with vintage. The editor has to decide if it is necessary or not to add it in the discussion section (limitations of the study).

We agree with this comment. However we decided not to add to “limitation” section the problem of vintage raised by the reviewer, so often disregarded by other authors.

2. The EBPG point out that there is an increased risk of death for dialysis patients with a BMI <23Kg/m2. However I realize that the normal values in the Table 1 that are referred to are for the normal population and not for dialysis patients (the other typical example is for PTH…). It should precised in the legend.

In the legend of tab 1 has been now précised that normal weight is for the general population.

4. However I do not understand the design of the analysis in Table 4. Figure 1 provides tertiles values for the delta Agatston score (<12, 12-239 and >239) and the score delta in Table 4 is < or > 1000. Is it log transformed (a median?)?

Tertile values of Fig.1 are those of our studied population. In Tab 4 population is divided in tertiles according with prevalent data of the literature. There is no log transformation.

5. Table 3 : Fetuin: 5,84 E-07 4,6 E-12 – 0,074 ?? Explicit also in the legend (as it is in the text).

A clarification note has been added in tables 3 and 4.