Reviewer's report

Title: Increased expression of NF-AT4 and NF-AT3 in the atria correlates with procollagen I carboxyl terminal peptide and TGF-beta1 levels in serum of patients with atrial fibrillation

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Reviewer: LI JIA

Reviewer's report:

The authors thoroughly test the expression of NF-AT3, NF-AT4, collagens 1 and III at mRNA level and protein level in the right and left atria of patients with AF. Meanwhile, they also detect the serum level of PIIINP, PINP, PICP, and TGF- #1 in the blood of patients with AF. They found that the expression of NF-AT3, NF-AT4, collagens I and III as well as PICP and TGF-#1 is increased in the AF group. Based on their finding, the authors concluded that nuclear NF-AT3 and NF-AT4 expression correlated with the collagens I and III in the atrium and with PICP and TGF-#1 levels in the blood. They eventually indicated that nuclear NF-AT3 and NF-AT4 participates in atrial structural remodeling.

Minor Essential Revisions

1. The authors should carefully organize their figures. Most figures and figure legend are mismatched. The label used in the figure should be consistent with it in the legend, such as Fig.1 and Fig.2
2. Please spell out abbreviation at first use in abstract, article, and figure legends.
3. Please indicate the extent of magnification in Fig.1 and Fig.2
4. Please reorganize Fig.3, Fig.4, Fig.5. Please indicate which panel is the representative blot, which one is the quantification of the blot.

Discretionary Revisions

5. What’s the mechanism that nuclear NF-AT3 and NF-AT4 participates in atrial structural remodeling? Is NF-AT3 and NF-AT4 involved in the atrial structural remodeling by increasing TGF-#1 level, then inducing PICP secretion and collagen synthesis? Please clarify it.

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 declare that I have no competing interests