Author's response to reviews

Title: Tricuspid valve obstruction and right heart failure due to a giant right atrial myxoma arising from the superior vena cava

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Version: 5 Date: 6 August 2013

Author's response to reviews: see over
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Manuscript ID: MS 1610109489100671

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Version: 2    Date: 9 August 2013

Author’s response to reviews: see over

Dear Mr. Vipin Zamvar:

Thank you for your letter dated July 10, 2013. We were pleased to know that our manuscript was rated as an article of importance in its field and as potentially acceptable for publication in Journal of Cardiothoracic Surgery, subject to adequate revision and response to the comments raised by the reviewers.

Based on the instructions provided in your letter, we uploaded the file of the revised manuscript on the journal's website.
As you notice, we have revised the manuscript by modifying the **Abstract, Background, Case presentation, Discussion** and **Conclusions** sections according to the inquiries and suggestions made by the reviewers. We have uploaded the revised manuscript marked with all changes made during the revision process. The new text is underlined and red colored while the crossed-out text refers to the deleted original text. We guarantee that our revised manuscript conforms to the journal style.

Appended to this letter is our point-by-point response to the questions and comments raised by the two reviewers. As you notice, we agreed with all the comments raised by the reviewers. We would like to take this opportunity to express our sincere thanks to the reviewers who identified areas of our manuscript that needed corrections or modification. We would like also to thank you for allowing us to resubmit a revised copy of the manuscript.

We hope that the revised manuscript is accepted for publication in **Journal of Cardiothoracic Surgery**.

Sincerely Yours,

Er-yong Zhang
Reviewer’s report (1)

Title: Tricuspid valve obstruction and right heart failure due to a giant right atrial myxoma arising from the superior vena cava

Version 1 Date: 22 June 2013

Reviewer: giovanni nano

Reviewer's report:

The article doesn't need any revision.

Dr. giovanni nano, Thank you very much for consideration of our manuscript for publication in the Journal of Cardiothoracic Surgery. This is a very exciting news for us.

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 interest.
Reviewer’s report (2)

Title: Tricuspid valve obstruction and right heart failure due to a giant right atrial myxoma arising from the superior vena cava

Version: 1 Date: 27 June 2013

Reviewer: Ahmad Darwazah

Reviewer's report:

A case of myxoma with interesting location....

I would like to congratulate the authors about the presenting case. However, few points needs to be clarified,

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1) Since the mass originated from SVC, did the patient had any signs or symptoms of SVC obstruction.

The patient had a distended jugular vein and mild dilatation of superficial neck and facial veins, resembling a SVC syndrome. However, the body of this giant mass located in the right atrial, and thus the symptoms of SVC obstruction was not that obvious.

2) More details about cannulation of internal jugular v.

After induction of anesthesia, the patient was placed in supine position, with the head turned slightly to the left. The neck area was prepped and draped steriley. The probe was wrapped in a sterile sheath with coupling gel inside. The right internal jugular vein (IJV) and carotid artery (CA) were visualized best in the transverse plane. The short axis view
of the right IJV was obtained by placing the probe transversely on the patient’s right neck, parallel and superior to the clavicle, over the groove between the sternal and clavicular heads of the sternocleidomastoid muscle. The right IJV and CA are identified by their relative anatomical positions, compressibility of the vein and visible pulsation of the artery. Under ultrasound guidance, with the puncture point positioned at the center of the anterior wall of the right IJV, the syringe needle was inserted into the vein for aspiration. A venous cannula (15Fr) was then advanced into the right IJV using the Seldinger technique. The technical details of the ultrasound-guided cannulation of internal jugular vein have been briefly added to the “Case presentation” section.

3) Cannulation was performed under the guidance of TEE, do you mean it was performed percutaneously?

As described in our revised manuscript, the cannulation of IJV was performed percutaneously. Both the IJV and inferior venous cava cannulation were performed after pericardiotomy. TEE was used to assess the proper position of the tip of the internal jugular vein cannula and help to locate a safe cannulation site for inferior vena cava drainage.

4) No information was mentioned about previous cases of myxoma arising from SVC. More details is needed about these cases to be added in the discussion and to compare them with the presenting case especially operative technique.

Thank you for your suggestion. We used Medline search 1948 to July 2013 using PubMed interface (Myxoma [MeSH Terms] OR Cardiac myxoma OR Cardiac neoplasms) AND (Superior vena cava OR vena cava). There are very limited literatures reporting the CMs-related obstruction of SVC, and these CMs are exclusively originated from right
The SVC-originated myxoma has only been reported by one paper from Teixido et al. [3], however, no signs of tricuspid obstruction and right heart failure were observed in that case. In Teixido’s case, the lesion was resected in its entirety with the exception of residual pedicle at the SVC base. Unfortunately, a large vegetative mass originating in SVC recurred 17 months later and required another surgical resection. Learned from Teixido’s experience, we decided to excise the myxoma and its attaching base (a part of the anterior wall of the SVC) completely, and the defect in the anterior wall of SVC was repaired with a pericardial patch. Related information has been added into the “Discussion” section.


5) More details about operative technique especially the resection of part of SVC and the use of pericardial patch.

We used a 0.6% glutaraldehyde preserved autologous pericardium for patch reconstruction of the SVC. Firstly, a tie was passed around the distal segment of SVC during cannulation procedures, and the distal part of the SVC was ligated before opening the right atrium. After completely removal of the mass and its pedicle, a 1.5cm×2.5cm vascular defect in the anterior wall of the SVC was identified. The glutaraldehyde
preserved pericardial patch was then washed in 0.9% NaCl solution and trimmed to the appropriate size. The patch is then secured to the vascular wall by two stay sutures. The superior stay suture is not tied and is used only to keep the patch in place. It is removed when the inferior suture line reaches its level. The suture is performed using running 5-0 prolene. At the end of the reconstructive procedure, the suture line was carefully checked for any leakage from the suture points. Related information has been added into the “Case presentation” and “Discussion” sections.