Reviewer's report

Title: The laparoscopic hiatoplasty with antireflux surgery is a safe and effective procedure to repair giant hiatal hernia

Version: 1 Date: 10 September 2013

Reviewer: Beat Peter Müller-Stich

Reviewer's report:

Marano et al. present a series of patients with giant hiatal hernias undergoing laparoscopic hiatoplasty with antireflux surgery. An extensive pre- and postoperative workup up to 12 months postoperatively was done including symptom evaluation, upper gastrointestinal endoscopy, barium swallow, CT scan, 24h ph impedance and bilirubin monitoring. They demonstrated a good outcome with no intraoperative complications and efficient postoperative reflux control. Six months postoperatively, endoscopy revealed recurrence in nary patient. They conclude, that the risk of recurrence can be reduced by complying with several surgical principles mentioned.

The manuscript is well written, the main topics of hiatal hernia surgery are addressed, and the pre- and postoperative subjective and objective evaluation was carefully arranged.

However, the cohort study with short term outcome provides only little evidence with limited impact on the ongoing research on this topic.

Some major aspects should be addressed:

1. Abstract/Conclusion: The lack of a control group does not allow any comment on the reduction of hernia recurrence by the technique described.
2. Patients and methods: Three patients were excluded due to “absolute contraindications to laparoscopic approach”. Please detail these contraindications.
3. Methods/Results: The use of PPI pre- and postoperatively should be added.
4. Methods: Description of oesophageal manometry and 24h pH impedance measurement should be shortened.
5. Were all patients available for the different tests up to 12 months postoperatively?
6. In the preoperative workup of giant hiatal hernias, manometry and pH metry are often not reasonable to perform due to the difficulty in localizing the gastroesophageal junction. Obviously, you did not have any corresponding problems in your series. Please comment.
7. Surgical procedure: the mesh type used should be detailed. Meanwhile it is well known, that the use of ProTack at the hiatus is hazardous. Why did you use these tacks? Please comment.
8. Results: Figure 5 and Figure 6 does not provide additional information and should be omitted.

9. Postoperative LOS pressure is mentioned to be significantly lower than preoperative. Do you mean higher?

10. Detailed information with focus in pre- and postoperative impedance data (gas reflux, liquid reflux, symptom index) would significantly add to the study and enable characterization of pre- and postoperative reflux in patients with hiatal hernias.

11. Discussion: Potential mesh related complications are mentioned. However, mesh related complications were mostly observed using PTFE-meshes. Complications with polypropylene have only been reported, to my knowledge, in four cases so far. However, the true rate of mesh-related complications is unknown. This aspect should be mentioned.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**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