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Reviewer #1

This is a fine review article, however, I have some suggestions for improvement: In general I think the article is too long. I would suggest shortening it a little; ie. in the long paragraph describing the WoW trial etc.
Thank you for the suggestion. The WoW trial section was shortened.

I found several statements not followed by a reference. I think this is acceptable for some, generally accepted statements, but unacceptable when the statement is controversial or directly in disagreement with published literature.
References were added to statements that we felt to be controversial.

Besides the above-mentioned I have some specific points:
1. Page 5, line 9-10: Please add references after the listing of risk factors for developing incisional hernia. Further, several studies point towards surgical approach, closure technique etc as risk factors involved in formation of incisional hernia. Should be mentioned here.
This section was edited. There are papers that attempt to standardize the repair (double crown tacks, sutures, etc.). We found no papers that had a standardized technique. In general, inadequate fixation and inadequate overlap have been seen to be factors during reoperation. More research should be done on specific surgical techniques to prevent this.

2. Page 5, line 11-15: I agree that hernias probably grow over time, however, do they become more morbid over time? Reference?
Thank you. This section was edited out.

3. Reference no 10: I do not believe it is a fact that 27% of all repairs are performed laparoscopically. Please change the sentence.
Thank you for the comment. In fact, there are several references indicating that the percentage of laparoscopic repairs in as high as stated in this paragraph. One of the references is the following: Funk LM, Perry KA, Narula VK, Mikami DJ, Melvin WS. Current national practice patterns for inpatient management of ventral abdominal wall hernia in the United States. Surg Endosc 2013; 27: 4104-4112.

4. Page 7, 2nd paragraph: Please add references to the risk factors.
Thank you for pointing this out. This was addressed as per your suggestion.

5. Page 14, ref. 36: Other studies have failed to find less pain after inguinal hernia repair using progrip mesh. Please also include this in the text.
Thank you for the comment. This was added to the text.

6. Page 16, line 1: Please refer to a few of the studies mentioned.
This was edited and references were added.

7. Page 19, ref. 53: This reference holds no information on weakening of the abdominal wall, seems malplaced here, although relevant later on.
Thank you for your comment. P792 of the reference describes weakening the lateral abdominal wall.

8. Page 20: I think it should be noted that another meta-analysis have indeed found a significant reduction in wound complications after minimally invasive CS.
Thank you for pointing this out. This is indeed a good meta-analysis that showed significant wound reduction. It appears to be the most current. This section was edited.

9. Page 23: If the authors want to express that the use of da Vinci has increased rapidly, please write this instead of "exploded".
This was changed.

10. Page 23: I do not think a quote from a scientific meeting belongs in an article. Please remove this (although relevant).
This statement was removed.

11. Page 25: Ref. 73 is the same as no. 11. Consequently, the authors are here repeating themselves. Please rephrase.
This was edited.

12. Page 28: States that fewer than 20% of all hernias are repaired laparoscopically – previously stated the number to be 27%. Please correct this.
Thank you for pointing this out. Several papers cite about 20%, however, the recent Funk paper above cited 26.6% (which is why we said up to 27%). We edited this to include the range.

13. Page 29: Please add reference to the statement about CS and improved abdominal wall function.
Thank you for the suggestion. This was edited.

Reviewer #2

The manifestation of incisional hernias within 5 years after index operation is widely a consequence of the limited follow up without age adjustement. Thorough Kaplan Meier estimates or epidemiological studies (Flum et al) indicate that many hernias manifest even after 5 years.
Biologicals are replaced by scar tissue and not by remodelling to physiological fascia or other local tissues. Once a scar means always a wscar with all the consequences of scar

contraction and blocking of regeneration. Coating with some molecules of Ti does not lead to substantial strengthening of the fibres, or to a change in weight.

Considering the many excellent options of procedures and equipments it is difficult to identify the patients who will take a benefit of a specific procedure or a specific mesh.
For the development of a tailored surgery we need criteria which help us to select the best technique for a patient, which may be either open or laparoscopical; ePTFE or coated PP. It will be a challenge to elaborate these discriminating questions. Considering the low incidences of complications even in selected patients future research should focus on registries instead of (usually underpowered) clinical studies to evaluate strategies.
Thank you kindly for your review. The discussion concerning the 5-year interval to presentation for recurrence was edited out in interest of length. The biologic mesh section was converted to a table. The tetanized mesh section was edited. Your comments on the "tailored surgery" and use of registries were incorporated into the "Future Directions" section.

Review #3

It is a thorough and excellent review article about laparocopic ventral and incisional hernia repair. However some points are missing and other are over explained or repetitive, taking into consideration that it is a review about technical evolution. Firstly, the text is too long and in some points it is repetitive. It looks like a book chapter. Some aspects could be summarized to give the reader a clear and direct view. I believe, since it is a review article about laparoscopic repair, that the types of meshes are just over explained. There are so many details about it that makes the reader loses the focus of the article. The authors could summarize this part. Another aspect that makes the text too long is the studies details over explanation. Talking about citations, there are many statements that should be followed by a reference. Missing points: There are few or none citations about studies comparing costs between open versus laparoscopic repair. The title is about evolution and advances. But it seems, when you finish the text, that only meshes have evolved over time and that this was the main evolution in the technique. The authors depict more about advances in general laparoscopy and future trends than about specific evolution in hernia laparoscopy. There are no mention about advances in laparoscopic needle driver, energy forceps, suture lines and so on. In the end, you finish the article not knowing how the laparoscopic repair was done in the past. In fact, the evolution of laparoscopic ventral and incisional hernia repair is described briefly in the introduction and the whole text in about modern studies comparing open versus laparocopic outcomes.
Thank you for your suggestions. We have edited this paper for length and added a section on laparoscopic instruments. The mesh sections were condensed into tables and the text was shortened significantly. We added references to statements that needed a citation.