Response to Reviewer #1:

Scientific Quality: Grade D (Fair)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: I think the rapport is interesting including radiography and intra-operative photo on this rare complication after TAPP repair , but the literature review in the discussion is very short, without a deeply discussion of the different ways of close the peritoneal incision and the type of complications related to those different methods.

We appreciate the reviewer's helpful comment. We have reviewed the literature and added paragraph to deeply discuss this question in the Discussion as following:

The peritoneal closure can be performed with running suture, tacks, and staples and glue. There are many studies compared different materials for peritoneal closure in TAPP inguinal hernia repair. In Kapiris's study, running suture and stapled closure of the peritoneum were described.[5] They found that running suture with Vicryl reduced the incidence of intestinal obstruction from herniation through the peritoneal closure. However, a case of small bowel obstruction due to displaced spiral tack after TAPP procedure has also been reported by Fitzgerald et al.[14] As Ross et al.[15]reported, suture closure of the peritoneum had less early post-operative pain than the tacked group, and improved 2-week post-operative activity compared to stapled and tacked group. Subsequently, when the sample size were expanded and 2 years long-term follow-up, Ross et al.[16] found that the outcomes have no significant differences between the tacked ,sutured and stapled techniques. However, Oguz's prospective randomized study suggested that the peritoneum closed using tacker increased short-term pain than suture closure.[17] Recent studies demonstrated the safety and feasibility of glue device used for the peritoneal closure in the TAPP procedure, but further randomized comparative studies are still needed to confirm these early results.[18, 19] Although the optimal method of peritoneal closure in TAPP remains controversial, the running suture method is still widely used.[20-22]

Additionally, some sentences in the manuscript have been appropriately adjusted and marked in the redacted mode.

Some specific comments are the following:

1. What means about "traditional surgery" in the first sentence of the abstract?

suture repair or open mesh repair? . Open mesh repair is considered nowadays the most common approach for hernia repair. TAPP has no lower recurrences or complication rates than open mesh repair in the literature.

Sorry for the omission of this important information. We agree and have corrected this sentence as followings:

Compared with open mesh repair, transabdominal preperitoneal hernioplasty (TAPP) can achieve less chronic inguinal pain postoperatively and faster postoperative recovery; however, it may still lead to rare but serious complications.

Thanks again for the reviewer's correction.

2. In the Discussion you write "However, if used improperly, the barbs may be attached to the adjacent small intestine, mesentery, or omentum". Means you that the cause of this case rapport was an inappropriately use of the V-loc in the TAPP repair or is it possible that this type of complication can occur even when you use the V-loc appropriately?

This is a very important concern. Due to the configuration of the V-LocTM wire, it has been widely used in the context of gastrointestinal surgery, hernia repair, gynecological and urological surgery. After re-review of the English language literature, we found that reports of the postoperative small bowel obstruction or volvulus complications induced by V-Loc were mostly case report. These literatures highlighted that the inappropriately usage of V-Loc was the main cause of the complications. Therefore, we believe that appropriately use the V-Loc might reduce or avoid the incidence of complications. We have also added relevant paragraph and references to the discussion as followings:

Therefore, it is very important to know the correct use of this V-LocTM to reduce the possible complications in the TAPP procedure. The manufacture of V-LocTM recommended that the suture stump should be engulfed extra peritoneal beside the closed peritoneum.[25] According the literature review, the end of the suture line seems to be the key-point.[26-29] Similar small bowel obstruction or volvulus complications following V-LocTM suture has been reported in the context of gastrointestinal surgery and gynecological surgery.[30, 31] Additionally, all defects of the peritoneal flap larger than 5 mm should be mandatory to meticulously suture to avoid mash contact with

abdominal viscera. Furthermore, when the peritoneum was fragile and thin, peritoneal flap closure with staple may be alternative.[22] In this study, after the peritoneal flap was complete closed with V-LocTM, backward stitch was placed to prevent suture loosening. This might lead to laceration and gapping of the peritoneum and then caused the adhesion of the small intestinal wall to the site of peritoneal injury, leading to intestinal volvulus. Therefore, V-LocTM for peritoneal closure in TAPP procedure whether with a return suture should be reassessed.

3. Was the site of the adhesion in the middle or in the end of the peritoneal suturing line?

This is very reasonable question. As Takayama et al reported (**Reference 8. Takayama.S., et al., World J Gastrointest Surg 2012; 4(7): 177-179. PMID: 22905286**), after use of V-Loc™ continuous suture for peritoneum complete closure in our TAPP procedure; a return suture was placed to prevent suture loosening. Therefore, the adhesion site is close to the residual end of the V-Loc™ adopted in the peritoneal closure and not at the end of the peritoneal suture.
We modified this sentence in the “History of present illness and past illness” portion as following:

The peritoneum was then closed with a V-Loc™ 180 continuous suture and a return suture was routinely placed to prevent suture loosening.[8]

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: Please see the attached document for comments.

Additional comment:

Q1: Are you aware of any specific measures for prevention of adhesions when using barbed V-Loc sutures? How should we reduce the risk of this serious postoperative complication following an elective procedure that is generally considered to be of low risk? Please elaborate on this in the discussion section.

We appreciate the reviewer's helpful and meticulously comments. The specific recommendation of using the V-Loc for peritoneal flap closure, techniques and measures had been added in the discussion portion. After re-reviewed the literature, we added a paragraph of discussion on the above questions as followings:

Therefore, it is very important to know the correct use of this V-LocTM to reduce the possible complications in the TAPP procedure. The manufacture of V-LocTM recommended that the suture stump should be engulfed extra peritoneal beside the closed peritoneum.[25] According the literature review, the end of the suture line seems to be the key-point.[26-29] Similar small bowel obstruction or volvulus complications following V-LocTM suture has been reported in the context of gastrointestinal surgery and gynecological surgery.[30, 31] Additionally, all defects of the peritoneal flap larger than 5 mm should be mandatory to meticulously suture to avoid mash contact with abdominal viscera. Furthermore, when the peritoneum was fragile and thin, peritoneal flap closure with staple may be alternative.[22] In this study, after the peritoneal flap was complete closed with V-LocTM, backward stitch was placed to prevent suture loosening. This might lead to laceration and gapping of the peritoneum and then caused the adhesion of the small intestinal wall to the site of peritoneal injury, leading to intestinal volvulus. Therefore, V-LocTM for peritoneal closure in TAPP procedure whether with a return suture should be reassessed.

Moreover, the "Case report" had been added as one of the "Key Words". The timeline (Table) had been added.

Reviewer #3:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: Hello Thank you for an interesting and important manuscript. I have only one comment: 1. In title you write that your manuscript is a literature review also but amount of references are too short for literature review and information about this problem ins not enough for review. Please change title or make literature part longer. Best regards.

This is very reasonable concern and we appreciate the reviewer's comment. We have retrieved the literature about the methods of peritoneal closure in TAPP and related complications. Furthermore, we have added two paragraphs in the discussion portion and discussed detailed with the new added 15 references. Thanks again.

Response to re-review:

We appreciate the Reviewer’s and editor's helpful comments and suggestions. The quality of English language of the manuscript has been polished by the MedE Editing Group (reached Grade A). Any changes with the original manuscript were highlighted in red color. Best regards. Yi Man Department of Hernia Surgery, Tianjin Union Medical Centre, Tianjin, 30000, China