

Chapter 13

The Horrible Way the World will end if you Don't Close the Fascia

*“An integral part of any relationship is knowing that you
could be killed in your sleep at any time.”*

- Trent Reznor

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So you finished the hysterectomy abdominally, left the multiport device in the umbilicus, and desufflated the abdominal cavity with the port still in place. After this, you've gone to the vaginal approach and closed the vaginal cuff. After closing the vaginal cuff, you placed a sponge stick in the vagina and returned to the abdominal perspective, turned the CO₂ back on, and visualized the abdominal cavity. At this point, you have removed any ovaries or fallopian tubes that you needed to, placed some Arista™ on the vaginal vault. Next you pulled the Triport™ and now it is finally time to close the fascia. *Or is it?*

The debate of whether or not suturing to close the fascia is necessary is a debate that is almost as old as laparoscopy itself. Clearly, umbilical hernia is a disastrous complication of laparoscopy, essentially requiring a second surgery.⁶¹ This surgery, in many cases, is felt by the patient to be more intrusive than the first. Not to mention the fact that a surgeon who “*can't get things right the first time*” will be considered poorly by his colleagues and patients.

Closing the fascia, however, is not without risks itself. Routine fascial closure will invariably increase operative times and, in situations where fascial closure could be more difficult, you must raise the possibility of a complication. The most notable of these complications is bleeding, which could go unnoticed as the fascial incision is closed. This is not to say that incision site bleeding is completely avoided by avoiding fascial closure, as there is the occasional blood vessel held in tamponade by the trocar port and which, upon removal of the trocar port, will bleed. It is just more common to have bleeding with the suturing of fascia at the end of the laparoscopy procedure.⁶²

Delving into the data is of very little use in this issue. Multiple authors have argued the necessity to close ports of greater than 12 mm.⁶³ Multiple others have argued

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the necessity to close ports created with sharp trocars. Considerably fewer authors have argued closing incisions less than 12 mm, and even fewer authors have argued the necessity to close smaller incisions created by blunt trocars.⁶⁴

In the interest of patient safety, speedy expeditious nature of surgery, and most importantly, reproducibility of this technique, I offer this compromise: *the college try*.

To clarify, I am not suggesting that closure of the fascia is a trivial item. If anything in the surgery has forced you to expand the size of the umbilical incision, for example, or if you have also used the umbilical incision to remove a mass encapsulated in a bag which stretched the walls, or if an overzealous resident or surgeon-in-training has stretched the umbilical incision using his or her fingers, then without a doubt a true closure of the fascia must take place.

For a true closure of the fascia, I generally recommend any one of the laparoscopic closure systems, the Carter-ThomasonTM system being the most famous.⁶⁵ In the event that you are using only a single port, a fascial closure technique using S retractors or Army/Navy retractors will be acceptable, as well. However, for the majority of cases performed with this technique, there is likely no reason the fascia needs to be closed, which is why I recommend only closing those which are easily visible. I recommend inspecting the umbilicus, inspecting the subcutaneous tissue and seeing if the fascia is easily noticeable from gentle inspection using only pickups or Addison forceps.

In the event that you are able to visualize both sides of the fascia, by all means grasp those by the tissue planes and close them. My favorite suture for this is 0 Vicryl on a UR 6 needle.

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However, in the event that you cannot clearly see the fascia, I do not recommend you begin an intrusive expedition to locate it if you have only used a bluntly created 11mm port. Instead, I recommend simply closing the subcutaneous tissue that you are sure is not within the abdominal cavity with a single interrupted suture. This will help to approximate the size of the fascia and, at least temporarily, will prevent any herniation of bowel contents through this hole. Most importantly, this closure of the subcutaneous tissue will allow you to comfortably place your Dermabond glue into the skin incision without the fear that this glue is going to enter the abdominal cavity where it could be considered quite caustic.

I generally do not recommend a cutaneous suture other than the Dermabond™ glue. It is also recommended that, in order to achieve the best results after placing the subcutaneous suture or fascial suture at the bottom of the umbilicus, you should gently push the umbilicus into the abdomen prior to putting the glue inside of it. This will return the umbilicus to a nice concave shape that, almost invariably, it will heal into permanently. This is both cosmetically pleasing to the patient and provides an excellent “tiny bowl” to pour the Dermabond™ glue into. Following the surgery, most patients find they have a smaller, more concave umbilicus than they previously had, and many patients compliment me on how their umbilicus is more cosmetically pleasing that was prior to the surgery.

I often joke that I leave belly buttons “25% cuter” than I found them. Scars are never visible but, occasionally, healing will change an “innie” to an “outie” or a rare patient will have some less than perfect cosmesis. I have seen few of these in my career.

One other pearl that I need to include here is that I would recommend putting a Band-Aid™ on the incisions, not Steri-Strips or surgical dressings. Band-Aids™ provide

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a strong placebo effect that is necessary for a patient to feel as if they have had a minor procedure, not one of the most major surgeries a woman can receive. Another small pearl is to be sure to apply the Band-Aids™ to the umbilicus while the glue is still wet. A very small percentage of patients, often in unfortunate life circumstances, have the tendency to pick at incisions or obsessively clean incisions until bleeding or redness ensues. Invariably, patients then present to the emergency room to show emergency room physicians what a horrible job you have done with their recent surgery. A Band-Aid™ that is firmly affixed to the incision with Dermabond™ glue is much less likely to befall these events, as messing with the incision will not give the patient any visual results and will likely cause pain because the Band-Aid™ is glued in place. The glue generally hardens and releases around the second day postoperatively, which is when I recommend patients remove the bandages in the shower. A small, remaining cone of purple glue will then fall out over the next week, or be removed during the first postoperative appointment.

References:

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