

A Practical Tip to Prevent Intraoperative Blockage of Suction Tubing

Sir,

Suction devices are routinely used during operative procedures to evacuate liquids such as blood and solutions used to irrigate wounds and cavities. These devices generate negative pressure (below standard atmospheric pressure) to achieve suction of fluids.

Direct application of suction tubing to tissues can cause soft tissue trauma and the tubing itself can also become blocked by soft-tissue debris thereby increasing surgical time.

In our practice, we have encountered this during cases requiring high volume washout such as debridement and washout of infected wounds where curettage of the wound bed creates a lot of soft tissue debris including globules of adipose tissue. This is also relevant in any intra-cavity procedures where minimal handling of and trauma to friable tissues such as bowel is desired.

To prevent blockage of the suction tubing, we use a simple, economical and effective method that allows us to aspirate fluid from the cavity whilst minimizing the soft tissue damage and preventing the blockage of the suction catheter. When aspirating a large volume of fluid, firstly remove smaller caliber attachments from the suction tubing such as Yankauer suckers. Hold in place a small swab over the suction tubing whilst aspirating the fluid [Figure 1]. This allows the fluid to be aspirated from cavities and protects the surrounding soft tissues [Figure 2]. A similar technique has also been described for laparoscopic procedures.^[1] The advantage of this technique is that in addition to aspirating fluids, debris such as clots or other pieces of soft issue collect in the gauze and can easily be removed from the surgical field.

Techniques that flush the suction lumen to clear blockages have also been described. Badran and Karkos describe the use of a three-way tap attached to their suction device that flushes the sucker during otological microsurgery. Wissler and Morrissey presented a similar component for use in endoscopy. Similarly, Evans and colleagues described a newly designed microsuction-irrigation attachment that could be used during microsurgical vessel anastomoses to flush the vessel lumen with heparinised saline and also



Figure 1: Remove any suction attachments e.g. Yankauer sucker and place a swab over the suction tubing

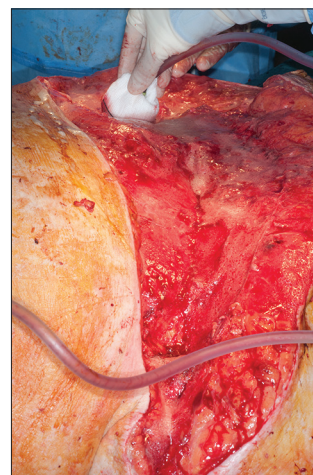


Figure 2: Technique being used during washout and debridement of necrotising fasciitis

suction the area to keep a clear field of view when operating under the microscope.^[2-4]

In conclusion, our method of applying a swab over the end of suction tubing during operative procedures is a simple yet inexpensive method of avoiding blockage of the tubing and removing the soft tissue debris from the surgical field and is a tip we think will be beneficial for junior and senior surgeons alike.

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