Surgical Tube-Drain: A Rapid Method of its Secure Fixation

Sir,

Fixing a surgical tube-drain is a common procedure (usually delegated to the junior-most trainees) that can significantly alter the postoperative morbidity. Ironically, in spite of today’s technological advances in the surgical field, drain-related complications are still being reported. However, its inadequate fixation is largely responsible for a significant, though, preventable morbidity (like dislodgement, fracture, peritoneal retention) or even mortality.\textsuperscript{1,2} Although various techniques of drain-fixation are described in the literature,\textsuperscript{1} the ideal seems elusive. In this context, we describe a simple technique to secure tube-drain fixation that can favourably affect the postoperative recovery of a patient.

One full-length 1/0 silk suture is used to form two suture-loops (suture-1 and suture-2) on either side of the drain. The suture-1 is tied at two places on itself by forming a surgical knot (two throws) followed by a simple knot (called the knot-assembly). One centimetre silk is left in between the two assemblies (Figure 1, Step-1). The two thread-ends of suture-1 are then criss-crossed around the drain and sequentially tied at three places by three knot-assemblies placed 1 cm apart (Figure 1, Step-2). The secure knot-assemblies form indentations at the corresponding sites on the tube that tend to prevent slippage of the drain (Figure 1, Step-3). Similar steps are carried out for the suture-2 to complete the procedure. The fixity is confirmed by gently pulling the tube outwards.

The described method offers adequate margin of thread-mobility between the skin and the tube thereby reducing the drain-related pain. This is likely to expedite patient’s postoperative recovery. Moreover, it does not require any special devices and hence can be cost-effective. In addition, the double suture-closure on either side of the drain tends to prevent peri-tubal fluid-leaks. We have used this technique in over 5800 abdominal and thoracic cases without any drain-associated morbidity. Thus, it may be considered a safe and effective method of fixing tube-drains.

REFERENCES


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