Short Communications

A new head and neck surgical drain fixation technique

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Abstract
We describe a simple technique of drain fixation in head and neck surgery using a beaded 2/0 nylon suture and a 'clove hitch' to achieve a non-slip fixation to the drain.

Key words: Wounds and Injuries; Surgical Equipment; Drainage

Introduction
Surgical drains are used routinely in head and neck surgery. Methods of fixation differ but the untidy ‘Roman garter’ or ‘Centurion’s sandal’ fixation technique is commonly used. Spontaneous dislodgement and complications from fixation of a drain or chest tube are not uncommon.1 We describe a technique that we have used to secure neck drains which is simple to use, effective and to date has not resulted in dislodgement or difficulty in the release of the drain.

Description
The technique is extremely simple and is a modification of a technique previously described by O'Flynn.2 A beaded 2/0 nylon suture is passed through the neck skin into the wound (Figure 1(a)). A clove hitch is then tied around the tube. Two side-by-side loops are made in opposite directions (Figures 1(b) and 2(a)). The left loop is passed under the right loop and the drain is passed through the hole (Figure 2(b)). The two loops are adjusted such that they hold the drain in place just adjacent to the inside surface of the wound (Figure 3(a)). The needle is then passed out of the wound through the skin and the suture under tension is fixed by the second bead (Figure 3(b)).

The removal of the drain is equally simple. One bead is removed by cutting the suture flush with the skin which relieves the tension on the clove hitch. Gentle traction is then applied to the other bead and the nylon suture slips a few millimetres to release the drain. In no cases has the suture failed to release, but in this unlikely situation, excision of the other bead would allow easy release of the tube.

Discussion
The clove hitch is a simple knot used extensively in yachting and in rock climbing. It secures a line at right angles to a fixed structure and is completely non-slip when tension is applied. The knot is also easy to undo as it releases immediately on removal of the applied tension.

This method of neck drain fixation is a modification of that described by O’Flynn.1 He suggested passing the needle and suture through the drain itself. We found that this increased the risk of drain blockage from thrombus or loss of suction drainage.

The advantages of this technique are four-fold. Firstly, it is an extremely easy and quick way to fix and release the drain. Secondly, it is a fail-safe technique of drain fixation. This is in comparison with the ‘Centurion’s sandal’, the integrity of which tends to be operator-dependent. Thirdly, it eliminates loss of vacuum or drain obstruction associated with the passing of a suture through the drain. Finally, it avoids the untidy coil of sutures and knots on the outside of the wound associated with the ‘Centurion’s sandal’ technique, which can interfere with wound dressings, compromise wound hygiene and is less cosmetically appealing.

We describe a simple, tidy and safe method of securing a drain. We would recommend use of this technique not only in the head and neck region but also in other anatomical areas.

References

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(a) A beaded 2/0 nylon suture is passed through the neck skin into the wound. (b) Two side-by-side loops are made in opposite directions.

(a) The two loops of a clove hitch are twisted in opposite directions. (b) Passing the object through the hole made by the two loops.

(a) The loops are adjusted to hold the drain in place. (b) The needle is then passed out of the wound through the skin and the suture is fixed by the second bead.