SHORT COMMUNICATION

An Alternative Method for Securing Surgical Drains in the Neck

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Summary

A method for securing closed suction drains in the neck is described where it serves to prevent leakage, slippage and accidental removal. This method involves passing a stay suture through the most proximal holes of the drain and suturing it to the skin and an overlying short length of the tube externally. Drains secured in this manner can be left in the wound for up to fourteen days with no associated complications from our experience in sixty-two patients following head and neck surgery.

Key Words: Drain, Head and Neck surgery

Main Article

Adequate drainage of the wound after surgery is essential as potential collections can lead to the formation of haematoma or seroma which can complicate wound healing. To reduce the risk of contamination and cross infection, closed suction drainage is commonly employed[1]. By convention, these drains are secured by means of skin stay sutures tied around them. Not infrequently, leakage or slippage resulting in the accidental premature removal of drains secured in this manner occur and create untold problems with the subsequent management of the wound which can be complicated by dehiscence, infection, fistula formation and delayed healing[2].

In order to prevent this, we propose an alternative method of securing drains. After the appropriate length of drain is inserted into the wound, a non-absorbable stay suture is passed through the first two most proximal holes of the drain and sutured through the overlying skin and a short redundant length of tube, cut from the drain, placed externally on the skin (Fig. 1). The site on the skin to which the drainage tube is sutured to should be at least one half the distance between the wound edge and the site of where the drain emerges. This is to ensure that whenever the drain is pulled taut, the most proximal hole of the drain is prevented from being pulled out beyond the drain's skin puncture site causing suction leakage of the drainage system. Externally, the short length of drain which the suture is knotted onto also function to prevent the stay suture from cutting through the skin. To remove the drain, the stay suture is cut to release the drain beneath.

We have used this method successfully to secure all our drains following operations of the neck region in sixty-two patients without complications of leakage, slippage, blockage or drain fracture. Of these sixty two cases, there were thirty seven radical or modified radical neck dissections, sixteen parotid gland resections, three pedicled pectoralis major flap reconstruction following resection of head and neck cancers, three total laryngectomies, two pharyngeal pouch excisions and one hemithyroidectomy. The stay suture used should be non-absorbable and the size of 2/0 or 3/0 is ideal in most situations. This method can also be used on fine bore drainage tubes down to the size of 2.7mm external

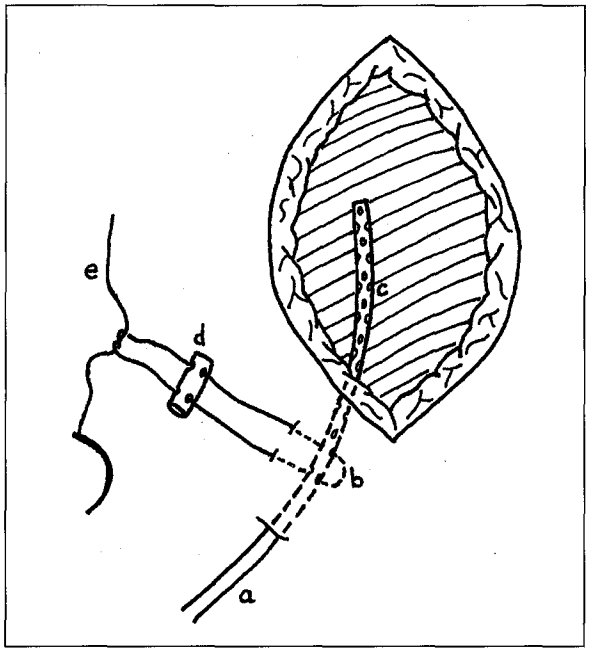

Fig. 1: Illustrating the method to secure a drainage tube to the skin via its proximal holes. Drain emerging through skin puncture site (a), suture passing through the two most proximal holes of the drain beneath the skin (b), drain in wound (c), short redundant cut length of drain placed externally (d) and non-absorbable suture (e).

diameter (Ch 8). The duration for which the drains were left functioning in the wounds ranges from twenty-four hours to fourteen days. The longest duration of fourteen days was in the conservative management of a case of chylous leak following en bloc radical neck dissection.

References

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