

An Easy Method for Drainage of Fluid in Cases of Continuous Irrigation of the Hand

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Summary: Description of a novel method to perform continuous irrigation for flexor tenosynovitis in a way that is comfortable for the patient and convenient for nursing staff by placing the hand in the suction pouch of a lithotomy style drape attached to wall suction. (*Plast Reconstr Surg Glob Open* 2016;4:e1127; doi: 10.1097/GOX.0000000000001127; Published online 20 December 2016.)

Patients who develop purulent flexor tenosynovitis often undergo multiple surgical procedures and have prolonged hospital courses because of the need for intravenous antibiotics and irrigation of the surgical site. Although most infected wounds in the rest of the body are left open to air to prevent the recurrence of an abscess, the skin of the hand is commonly closed to protect the underlying structures, including the flexor tendons, from desiccation. To improve the chances of a full recovery, postoperative continuous irrigation through 1 or 2 small incisions using small tubes has been utilized. Although this has been shown to be effective,¹ the fluid often runs out of the wound and can soil the clothing and bedding of

patients and generally serves as a nuisance. Negative pressure systems address this by employing 2 catheters, one to administer the irrigation and another to remove it.^{2,3} However, these are still prone to leakage, and care must be taken to not apply too much suction pressure, leading to tissue damage. Holding the infected hand over a bucket or pan is effective but uncomfortable for patients and laborious for nurses as they must repetitively drain the receptacle.

Considering these dilemmas, at our institution, we developed a novel way to easily and conveniently remove the fluid used in the postoperative period in this patient population. Our method is inexpensive, comfortable, and creates no extra work for nursing

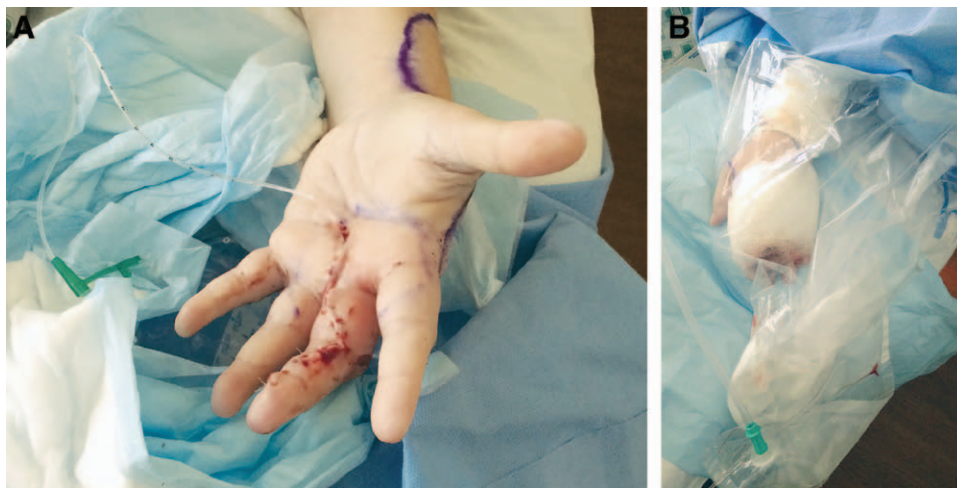


Fig. 1. A, A patient with left hand flexor tenosynovitis from cat bite with a continuous irrigation catheter in place. B, The hand is inside the suction pouch of a lithotomy drape attached to wall suction.

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staff. In our surgical technique, a small pediatric feeding tube is placed in the flexor tendon sheath proximally at the level of the A1 pulley and exits at the level of the distal phalanx. The skin is closed in a standard fashion around the entrance and exit points of the tube (Fig. 1A). The hand is then placed in the suction pouch of a lithotomy style drape commonly used for anorectal and gynecologic surgery. The drape is cut and secured with a tape around the arm of the patient proximally, and the distal end of the suction pouch is connected to wall suction with standard tubing (Fig. 1B). We have found that this technique allows our patients to benefit from the irrigation of their infected operative sites without the negative consequences mentioned above.

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