be performed using a 27G needle (Figure 2). The solution is prepared by diluting 1 mg epinephrine in 10 mL normal saline; 2 mL are injected at each of the four sites. Treatment with oral antibiotics should be continued for an additional 2 weeks to prevent infection.

Figure 1 — Gauze coverage area (shaded circle) and bandage compression (between the parallel lines).

Management of Pericannular Bleeding after Peritoneal Dialysis Catheter Placement

KEY WORDS: Pericannular bleeding; Tenckhoff catheter.

Editor:

Pericannular bleeding is a common acute complication developed within 1 month after peritoneal dialysis (PD) catheter insertion, especially in patients subjected to long subcutaneous tunneling (1–3). We designed a protocol for the management of acute postoperative pericannular bleeding.

Acute pericannular bleeding is defined as the need to change the dressing more than twice daily within 2 weeks of the operation. Our protocol includes intravenous administration of 16 µg desmopressin every 12 hours for 3 doses, and gauze compression with an elastic bandage (Figure 1: the external cuff is loosely covered with 6–10 pieces of gauzes to produce homogenous compression when an elastic bandage is placed encircling the trunk). The patient should be kept under observation for 1 day, and if the foregoing strategy fails, then percutaneous pericannular injection of epinephrine at 4 sites should

Figure 2 — Four sites of pericannular injection of epinephrine around the external cuff.

From 2006 to 2010, 20 of 244 patients who underwent placement of a straight two-cuffed Tenckhoff PD catheter experienced acute pericannular bleeding. The first management strategy failed in 6 patients (30%). The second management strategy was applied in those 6 patients, and the bleeding stopped within 24 hours. Blood transfusion was not required, and no exit-site infection was detected during follow-up.

Postoperative pericannular bleeding is considered to have both medical and surgical causes. From the medical point of view, patients who undergo PD catheter insertion usually have coagulation dysfunction even if the results of regular blood tests are normal. From the surgical point of view, the bleeders are usually located near the external cuff, because the Dacron cuff easily sticks over the subcutaneous layer, with the bleed developing after tissue rub. Such bleeds are usually too deep to check, and conservative management appears cost effective.

Postoperative acute pericannular bleeding is usually regarded as a self-limiting condition, and it is seldom recorded. Pericannular bleeding leading to hematoma formation increases the risk of catheter-related infection and may compromise catheter survival. Although our strategies are effective in stopping bleeding, they still have potential risks for catheter injury and pericatheter infection. Standard skin sterilization and meticulous injection techniques are important.

DISCLOSURES

The authors have no financial conflicts of interest to declare.

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