Hemostatic control of scalp incisions

Technical note

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A method is described to control bleeding from scalp incisions made for cranial surgery. The technique is simple and shortens the total length of time required for the procedure.

KEY WORDS • hemostasis • scalp incision • operative technique

BLEEDING from scalp incisions during cranial surgery, whether a small incision for burr holes or a larger incision for craniotomy, can be quite marked and troublesome. In spite of the use of sterile solution injection, hemostats, or a variety of metallic clips designed for hemostasis, the loss of blood during opening and closing of the wound can exceed several hundred cubic centimeters. Bleeding, especially during closing of the wound, can interfere with adequate visualization of the galea and prevent a good closure. With the potential for viral transmission by blood transfusion, it is particularly important to reduce the amount of blood lost.

With this in mind, a technique was developed that was first used for simple shunting procedures. The result was satisfactory and the technique has subsequently been used in all craniotomies. No complications or evidence of scalp ischemia have been noted and wound healing appears to be quicker with less collection of hematoma beneath the scalp than with other methods.

Technique

After preparation of the scalp and outline of the scalp incision, sutures are placed on both sides of the marked skin. These are interrupted sutures of 2-0 silk placed with a round needle so as to include the entire thickness of the scalp. The sutures are slightly overlapped and should be about 1 cm from the skin mark (Fig. 1). This procedure takes an additional 5 to 10 minutes, depending on the size of the incision. The scalp incision is made after all of the sutures are in place. If the sutures are placed adequately, there is no bleeding from the scalp. If a vessel has been missed, an additional suture placed directly over the bleeding area will control the bleeding. At the conclusion of surgery, the scalp is replaced and the galea can be sutured with ease. Skin sutures are placed, following which the hemostatic sutures are removed. There is usually no further bleeding, and the scalp wound can be simply covered with gauze and a transparent dressing.

Besides conserving blood and controlling bleeding, this method shortens the total length of time needed for the procedure.

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