RECANNULATION OF THE SCRIBNER BYPASS

W. FRITZER, O. JAHN and W. PINGGERA

II. Medical Clinic, University of Vienna, Vienna, Austria

Until recently a mechanical method suited to remove obturating or parietal clots from the vessels of a Scribner shunt was not available (Shaldon, 1964; Kerr, 1968). With the introduction of a new technique, which is similar to Seldinger’s method, it has become possible to reach the site at which clotting is most likely to occur, i.e., the site in front of the teflon tip in the vessel (Tsatas, 1964; Dillard, 1964).

This requires the following instruments: 2-3 Seldinger catheters (PE No. 160, Messrs. Ullrich, Ulm, Federal Republic of Germany); PVC catheters (Messrs. Portland, Hythe, Kent, U.K.); two 20 ml syringes; sterile drappings; sterile gloves; blood pressure cuffs for the extremities; isotonic saline solution at body temperature; and heparin.

Technique

The shunt and its vicinity are prepared and draped. The Seldinger wire, which is kinked to form a 20 degree angle approximately 3 mm behind the tip, is inserted into the silastic tube and advanced as far as possible. Then the wire is rotated forward through the silastic tube and the steel core is removed mm by mm by the assisting nurse (Fig. 1). This technique permits passage of the wire easily through both curvatures of the shunt and it can be advanced beyond the teflon tip into the vessel. Once the wire is in place, it is covered with a PVC tube. As soon as the catheter tip has reached the site of stenosis—which is checked by measuring or X-ray, the Seldinger wire is removed and the PVC catheter is moved to and fro and rotated with simultaneous vigorous suction through a syringe. This manoeuvre permits one

Fig. 1. Method of inserting guide wire and PVC tube.

366
to remove parietal clots and to punch out the bulging intima, if necessary. Depending on the size of the teflon tube used, it is possible to insert several Seldinger catheters into a shunt vessel.

This technique is suited both for arterial and venous recannulation. In the latter case, the wire will often be sufficient for piercing and removing the obturating clot. Embolism has never been found to occur.

The success of this method does not become manifest prior to 24 hours after declotting. During this period it is advisable to heparinize the patient. An objective assessment of the success of this technique is possible by means of angiography (Figs. 2 and 3) and dynamic function test (output in ml/5 secs.) (Fig. 4).

This method holds particularly favourable prospects for slowly developing processes, in which streptokinase therapy must needs fail on account of intimal proliferation.

Fig. 2. Arteriogram showing obstructing clot at tip of prosthesis.

Fig. 3. Repeat arteriogram after removal of clot.
Fig. 4. Effect of declotting an arterial output.

REFERENCES


