A Dacron® Velour Band to Prevent Complications of A-V Silastic Cannulae

L CIONI, E DENTI and S GIOVANNETTI
Ospedale Riuniti S. Chiara, Pisa and Società Ricerche Impianti Nucleari, Saluggia, Italy

Major causes leading to replacement of A-V shunts are: (1) infections in the potential space between the cannula and the surrounding tissues, and (2) obstructions of the cannula, which may be facilitated by minor trauma transmitted to the vascular tip of the cannula and to the vessels of the extracorporeal

Figure 1. Magnification (x 7.5) of the Dacron velour (A); A section of the silastic cannula with the Dacron velour band (x 7.5); A Dacron-silastic cannula removed after one month in the subcutaneous tissues of a dog (x 7.5). Note the Dacron velour colonisation by the surrounding tissues (C); higher magnification (x 20) of the previous figure. The silastic cannula appears as a strip on the left. Tissues penetrating the Dacron structure occupy the rest of the picture (D)
part of the shunt (De Palma et al, 1969). A band of Dacron® velour, the texture of which may be firmly colonised by the patient's tissues, was sealed around the silastic part of the cannula in order to achieve two purposes: a greater stability in tissues (thus avoiding the transmission of the minor trauma to the vessels) and of filling the potential space (thus preventing bacterial access) (Figure 1). Nine shunts thus prepared have been implanted to date and no malfunction or infection occurred. Even though the longest duration in a single patient is relatively short (9 months), successful experience with this cannula amounts, in the whole, to 56 months, suggesting that it is efficient in preventing complications.

REFERENCES