A SIMPLE SHUNT FOR REPEATED HAEMODIALYSIS

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TECHNIQUE

Standard Travenol cannulae are inserted into the radial artery and an adjacent vein for the first dialysis. At the end of the dialysis these cannulae are left in situ. The distal end of the venous cannula is dilated for 1 cm. by a mandril: the distal end of the arterial cannula is then pushed into the end of the venous cannula and the junction is sealed by cyclohexa-
one. Before the junction is made a latex cuff is slipped over one of the cannulae to allow future blood sampling and blood transfusion.

RESULTS

This simple shunt has been put in 102 times to 93 patients and has been used for 174 dialyses. It has proved of great value. Occasionally, when the blood flow is slow, the cannula will clot in one or two days but in the majority of cases a flow is maintained indefinitely. If clotting does occur we have found it a very simple matter to free the arterial cannula by using a stilette: the venous cannula can also be cleared in a similar manner if a tourniquet is placed on the arm for a few minutes to raise the venous pressure, but it does occasionally happen that the venous side of the cannula can not be cleared of clot and then it may be necessary to re-
place the venous cannula in a new vein but this is a small and simple pro-
cedure.

This simple shunt has not been used for any long-term, chronic dialysis programme, but has proved very adequate for patients with acute renal failure and also for patients with chronic renal failure with acute exacerbations during the few weeks in which one is making diagnostic stud-
ies or perhaps stabilising the patient.

LATEX CUFF FOR BLOOD SAMPLING

This has proved one of the biggest advantages of the shunt, all blood samp-
ing being done through the latex cuff and, where necessary, blood trans-
fusions are also administered through the cuff. This has obviated all further venepuncture and has proved a great blessing to the patient as well as making blood sampling very easy.

The longest time that one of these shunts has been left in was 8 weeks and when the shunt was removed at this time the blood was still flowing freely through it.

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Figure 1. Standard Travenol tapered cannula disconnected after dialysis.

Figure 2. (A) End of venous cannula dilated by mandril.
(B) Arterial cannula passed into dilated end of venous cannula. Junction sealed by cyclohexanone.

Figure 3. Cannulae connected.

Figure 4. In practice, cannulae are looped around thumb and lightly bandaged to wrist.