

# REPAIR OF POSTERIOR AORTIC ANASTOMOTIC LEAKS

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AFTER COMPLETION of an aortic anastomosis, particularly the kind that is required for cardiac transplantation or excision of the ascending aorta, persistent leak at the posterior wall suture line (Fig. 1A) may be difficult to repair because of poor exposure. We successfully performed the following technique after other efforts at hemostasis had failed.

**TECHNIQUE**  
Straight swaged needles are required at both ends of the suture. If these are not available, curved vascular needles are straightened out by bending. The straight needles are inserted posteriorly, one transversely picking up tissue just superior to the defective anastomosis and the other taking a simi-

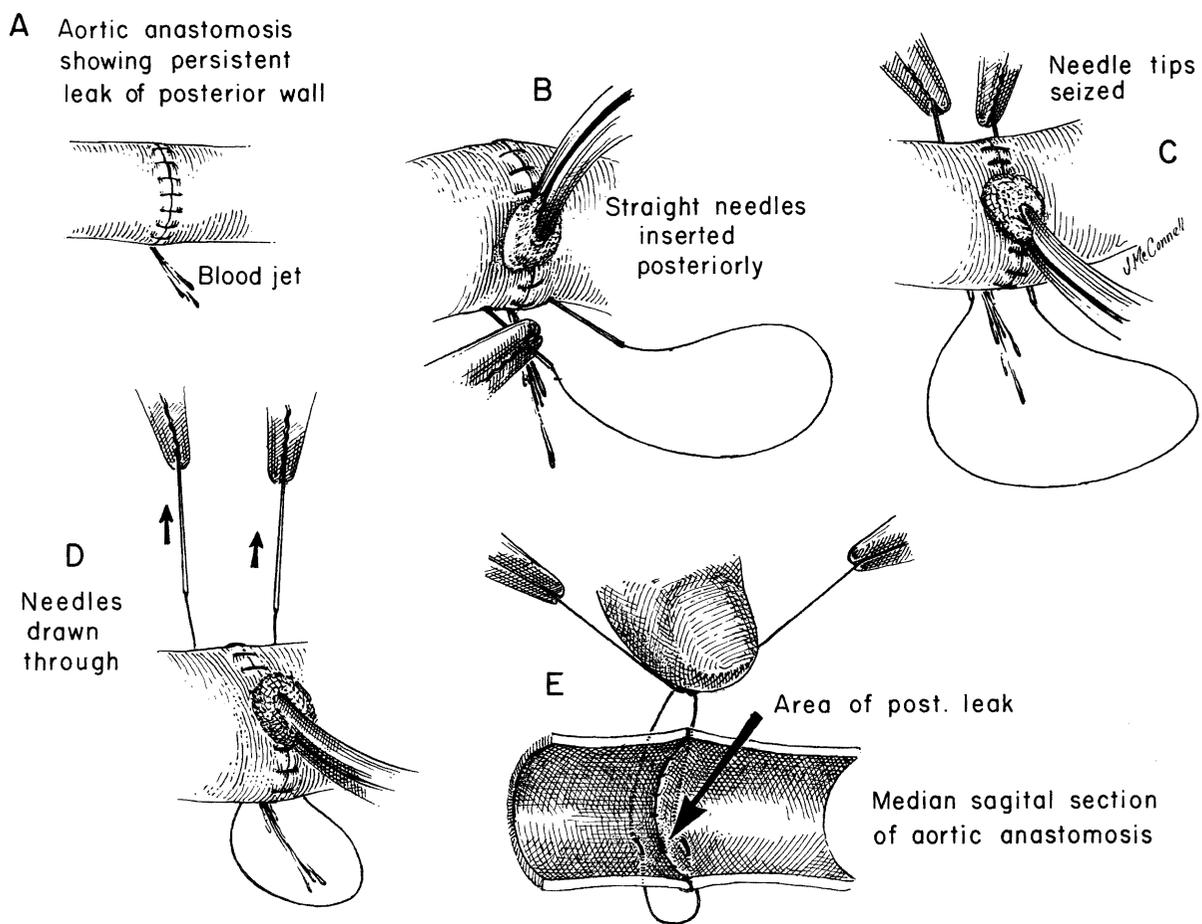


FIG. 1. Repair of posterior aortic anastomotic leaks with a mattress suture technique.

lar bite of the distal part of the vessel or vascular prosthesis (Fig. 1B). By retraction an effort is made to identify exactly the site of leak, but this may not be possible, in which instance suturing must be done semiblindly. Once the needles are passed through the back wall, the aorta is retracted to the other side, and the needle tips are seized and drawn through (Fig. 1C and D). It may, or may not be

necessary actually to enter the lumen with the suture.

After the free ends of the suture are tied, the resulting mattress suture is tightened only enough to stop the bleeding (Fig. 1E). Since this may require variable tension and strength, it is advisable to use a suture of slightly greater caliber than that used for the original anastomosis.