

Tissue glue for sealing plastic valves and bioprosthesis in the canine aorta.

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Abstract:

In experiments on seven dogs, a fibrin glue was used to seal plastic valves and bioprosthesis in the thoracic aorta. Each valve was fixed in place with only four single sutures. Intraoperative and postoperative angiographic checks, with countercurrent aorta filling, gave no indication of perivalvular leak, even after eight weeks. Histologic studies confirmed the angiographic findings and showed only slight changes in the aortic wall. The results indicate that application of fibrin glue, supplementary to conventional suture procedure, may be useful when satisfactory fixation of aortic valves is hampered by pathologic circumstances.