Resorcinol

Sutureless technique for oozing type postinfarction left ventricular free wall rupture. [Japanese]

Authors: Hayashi H., Nishimura Y., Mori H., Komori S., Hiramatsu T., Okamura Y.

Publication Date: 2005

Abstract:

We report our experience using a sutureless technique for oozing type postinfarction left ventricular free wall rupture. Several materials such as fibrin seat, autologous or heterologous pericardial patch, fibrin glue, and geratin-resorcin-formaldehyde (GRF) glue have been used. Nine patients, who developed postinfarction left ventricular free wall rupture, underwent surgical repair using a sutureless technique between 1999 and 2004. All patients survived and discharged our hospital without any postoperative complications. And all are alive an exellent condition in 5 to 44 months. A sutureless technique for the treatment of oozing type postinfarction left ventricular free wall rupture is simple, effective, and associated with a favorable outcome.

Improved techniques of applying fibrin glue in lung surgery.

Authors: Morikawa T., Katoh H.

Publication Date: 1999

Abstract:

To enhance the adhesive property of fibrin glue, two techniques were developed. The first is an improvement of the conventional layer method, and the second is a further improvement of the first technique. Their adhesive properties were tested in canine lungs in two phases. In phase 1 of the experiment, two new techniques were compared with the conventional methods in the retrieved lung. In phase 2 of the experiment, the second technique examined how its adhesive properties changed after treatment comparing them with gelatin-resorcinol-formaldehyde-glutaraldehyde (GRFG) glue. In phase 1, the first technique showed a 3-fold enhancement of the adhesive properties as compared with the conventional methods, and with the second technique the adhesive properties were further improved by more than 2-fold in the retrieved canine lung, In phase 2, it was revealed that the bursting pressure of both the second new technique and GRFG glue was eventually equal, and enough to close the cut surface of the lung. In the clinical setting, two techniques showed a safe and satisfactory performance in closing the cut surface of the lung. Due to the low toxicity of fibrin glue and absorbable material, these two techniques, especially the second technique, provide better circumstances for the healing of lung injury.

The use of biological glue in aortic surgery.

Authors: Bachet J., Guilmet D.

Publication Date: 1999

Abstract:

The biologic sealants presently available on the market that are used in cardiovascular surgery and particularly during surgery of the aorta are described in this article. Two of these biological sealants, the gelatin- resorcinol-formaldehyde (GRF) glue and two-component fibrin sealant have been in use for two decades. Their respective properties are described and compared, and the authors' experience with the GRT glue in 212 cases of acute type A aortic dissection is briefly reported.

Assessment of alternative tissue approximation techniques for laparoscopy.

Authors: Eden C.G., Coptcoat M.J.

Publication Date: 1996

Abstract:

Objective: To investigate the feasibility and results of applying alternative techniques of tissue approximation for experimental urothelial re-anastomosis in an open and laparoscopic setting. Materials and methods: The study was carried out in two phases; in phase 1, an open porcine ureteric re-anastomosis was performed using gelatin/resorcin/formaldehyde (GRF) glue, fibrin glue or potassium-titanyl-phosphate laser tissue-welding with a fluorescein-doped human albumin solder. The anastomoses were assessed both immediately, by leak pressure, and by the operating time, upper tract urodynamic studies and light and scanning electron microscopy, 6 weeks after surgery. In phase 2, the best technique from phase 1 was compared with sutured controls for porcine retroperitoneoscopic dismembered pyeloplasty, using the same assessment criteria. Results: In phase 1, GRF glue produced adhesion which was insufficiently flexible to withstand rotation of the anastomosis and this technique was therefore abandoned. Fibrin-glued anastomoses withstood leak pressures equal to those from laser-welding (P=0.91) and gave similar changes in maximum pressure with a Whitaker test at 6 weeks (P=0.30), but were superior in requiring a shorter operating time (P=0.02) and in their electron and light microscopic appearances. In phase 2, fibrin glue gave similar changes in maximum pressure with a Whitaker test to those from polyglactin 910 sutures (P=0.51) but withstood higher leak pressures (P=0.01), had a shorter operating time (P=0.01) and had superior electron and light microscopic appearances. Conclusion: Fibrin glue produced effective experimental laparoscopic pelvi-ureteric anastomoses within less operating time than did sutured controls. Such anastomoses withstood supra- physiological pressures, with no evidence of

functional obstruction and with a more favourable histological result after 6 weeks. Laparoscopic evaluation of this modality in a clinical setting is now justified.

Tissue sealing by local application of coagulation factors. [German]

Authors: Stemberger A., Blumel G.

Publication Date: 1983

Abstract:

Not Available