

Venous microanastomoses by fibrin glue versus standard technique.

[Italian]

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Abstract:

Background. The goal of this study is to compare the usual surgical technique with the use of fibrin glue, which is faster to perform and has few histological alterations in the anastomosis. **Methods.** We performed 70 microanastomoses on the internal jugular vein of the Sprague-Dawley rats, and we estimated: immediate and late permeability and postoperative complication. Besides, we made a histological study of all the anastomoses on the 15th day and after one month of the intervention. **Results.** The middletime request to practise the microanastomosis is significantly shorter when using the fibrin glue. The late permeability rate with standard suture is 97 and 77% with fibrin glue. The number of complications is similar, even if we found a 14.7% rate of aneurysms in the anastomosis with fibrin glue. The histological study showed few alterations to the vascular wall in the fibrin seal group and a great permanent histopathological alteration in the standard technique. **Conclusions.** The use of fibrin glue is a very good technique for this kind of microanastomosis. It is fast to perform, has few histological alterations and a similar permeability rate although careful approximation of the vascular edges is necessary to get a good anastomosis.