

Fibrin glue and conventional sutured vasal anastomosis in the rat.

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Abstract:

The present study was undertaken to evaluate the use of fibrin glue (Tisseel, Immune U.S., Inc) for vasovasostomy and to compare this technique to conventional sutured vasovasostomy. Thirty immature Sprague-Dawley rats, weighing from 60 to 80 g, were used in this study. A conventional one-layer sutured anastomosis (Ethilon 10-O) in 10 rats was compared to a fibrin glue technique of vasal anastomosis (10 rats). The fibrin glue technique was performed without sutures and was unstented. The biological glue was utilized to seal both ends of the vas. The contralateral vas was ligated with 5-O prolein. In the control group (10 rats) the left vas was ligated in the same way, and only the contralateral vas was explored. After 2 months, one male and two female rats were placed in a cage for a further 2 months. At the end of this period, the fertility rate was 80% (n = 8) of the control group, 60% (n = 6) of the conventional anastomosis, and 70% (n = 7) of fibrin glue groups, respectively. The testes and vasal specimens were evaluated for the presence of sperm granuloma, and histologic studies were performed. The incidence of sperm granuloma after vasovasostomy was 20% (n = 2) for the fibrin glue group and 30% (n = 3) for the sutured group. The sperms were seen in the proximal and distal side of the vasal anastomosis in 10 rats in the control group, in 8 in the glue group, and in 8 in the conventional sutured anastomosis group.(ABSTRACT TRUNCATED AT 250 WORDS)