

Comparison of vasovasostomy with conventional microsurgical suture and fibrin adhesive in rats.

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Abstract:

Objective: Microsurgical procedures are currently the gold standard for vasovasostomy with excellent results, but it takes an increased operative time demanding special training and experience in microsurgery. The objective of this study is to reach the same results with reduced operative time.

Materials and Methods: Male adults Wistar rats were divided into 3 groups: I) 20 rats in control group, II) 20 with conventional one-layer microsuture and III) 20 with fibrin glue. After four weeks each rat was left for two weeks with two female rats. **Results:** The fertility rates were 80% in group I, 70% in group II and 65% in group III ($p > 0.05$). In group II granuloma was found in 75% of the rats, while in group III in 85% ($p < 0.05$). Anastomosis was considered with patency in 75% and 80% of the rats in groups II and III ($p > 0.05$). Overall operative time was 41.7 ± 2.49 and 28.55 ± 1.14 minutes in groups II and III ($p < 0.05$) and the time to anastomosis of 24.6 ± 1.8 and 9.35 ± 0.78 minutes ($p < 0.05$), respectively. **Conclusions:** We can conclude that vasovasostomy with fibrin adhesive has the same results of the conventional microsurgery technique but with a reduced operative time and a simplified procedure.