Testis-fixation in prepubertal rats: Fibrin glue versus transparenchymal sutures reduces testicular damage.

Authors: Sencan A., Genc A., Gunsar C., Daglar Z., Yilmaz O., Ulukus C., Ozer E., Taneli C., Mir E.

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Abstract:

Experimental studies have shown that different suture materials used in testis fixation cause some degree of inflammation in the testis. This study was planned to compare the histological changes that were caused by fibrin glue which is a tissue sealant and by silk and polypropylene for transparenchymal testis fixation. 28 prepubertal rats were divided into 4 groups. Testis was fixed to the tunica vaginalis by fibrin glue in group 1, by silk in group 2 and by polypropylene in group 3. Group 4 was planned as a control. Testicular inflammation and seminiferous tubular diameter were evaluated for histological changes. The least inflammation was observed in the fibrin glue group, while the most inflammation occurred in the silk group. Seminiferous tubular diameter was 241.55 +/- 45.90 in the fibrin glue group, 151.90 +/- 8.34 in the silk group and 161.36 +/- 9.96 in the polypropylene group. In conclusion, fibrin glue, when used for testis fixation, causes less inflammation and less destruction of seminiferous tubular diameter compared with silk and polypropylene.