

The effects of transparenchymal suture material and fibrine-a tissue adhesive-on the contralateral testis.

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Abstract:

Objective: Experimental studies showed that fibrin glue (FG) which was used in orchidopexy and testicular torsion caused less tissue damage in the ipsilateral testis when compared with the transparenchymal suture materials. However, whether the usage of the FG in testis fixation causes any histological changes in the contralateral testis is not known. The aim of this study was to compare the effects of FG and other suture materials on the contralateral testis where no surgical procedure is performed. Material and Methods: Fifty prepubertal rats were randomly divided into 5 groups and the tunica vaginalis of all the right testes were longitudinally incised. In group 1, the incision line was closed with FG, whereas silk, catgut and polypropylene were used respectively in the groups 2, 3 and 4. Group 5 was the control group and no surgical procedure was performed on the left testes. The rats were sacrificed 3 weeks later and the diameters of the right and left testes were measured. Testes were evaluated by means of inflammation, seminiferous tubular diameter (STD), spermatogenetic activity and epididymal inflammation. Result: In group 2, 3 and 4, spermatogenetic activity, STD and the testis diameter of the ipsilateral testes decreased, whereas testicular and epididymal inflammation increased. When the contralateral testis was evaluated, STD of the FG group decreased and FG had no extra benefit on testicular histology when compared to other suture materials. Conclusion: Surgical procedures performed on the ipsilateral testis cause only a decrease in the contralateral STD, which is observed by light microscope, but this decrease seems to have no effect on the spermatogenetic activity. Besides, the usage of FG instead of other

materials in testis fixation has no extra benefit. However, it must be kept in mind that these results might vary when ultrastructural and immunological evaluations are performed. Copyright © 2008 by Turkiye Klinikleri.