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Experimental Unilateral Torsion of the Spermatic Cord in Guinea Pigs

Effects on the Contralateral Testis

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A systematic investigation of the effects of unilateral torsion of the spermatic cord on the contralateral testis of the guinea pig was carried out for variable time periods, ie, seven days, one, three and six months. Both histological and ultrastructural studies were made on all testicular autopsy materials collected from five groups of animals. Those five groups were: group I, 12 animals with unilateral torsion induced and maintained until the day of sacrifice; group II, 12 animals with unilateral torsion induced for four hours; group III, eight sham-operated animals; group IV, eight pentobarbital injected animals; group V. four untreated control animals. Of 24 group I and group II animals, degenerafive changes were noticed in the contralateral testis in ten animals. Those changes ranged from spermatid and spermatocyte degeneration to the complete loss of all types of germ cells in the contralateral testis. The degree of damage seemed to correlate with the severity of damage in the torsion-side testis and the length of time the damaged testis was retained in the body. It was concluded that a damaged testis retained in the body may cause degenerative changes in the contralateral testis.

Key words: spermatogenesis, testis, guinea pig, torsion

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