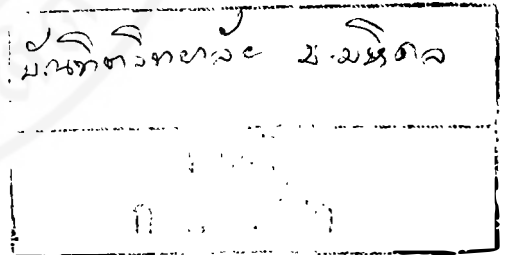


INFLUENCE OF ANDROGENS ON THE INTRATUBULAR PRESSURE IN DIFFERENT
REGIONS OF THE RAT EPIDIDYMIS

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ABSTRACT

Attempts have been made to determine the effect of androgens on the contractility of the rat epididymal duct by measuring its intraluminal pressure using a servo-null pressure transducer system. Ligation of the efferent ducts for 5 days did not alter the pressure in the epididymis. By contrast, bilateral castration produced several changes in different regions of the epididymis. In the caput, the amplitude of contraction, but not the frequency nor the basal pressure, increased by day-1. Increments in the basal pressure and the amplitude of contraction were seen 5 days later in the corpus, whilst the frequency of contraction remained unchanged. By 3 days after castration, an elevation of the basal pressure, but not the amplitude and the frequency of contraction, in the cauda occurred. Changes in the caput, the corpus, and the cauda were mimicked by cyproterone acetate treatments (10 mg/rat/day, subcutaneously, for 21 days). Besides, this drug increased the amplitude of contraction in the cauda. The effect of castration was effectively prevented by testosterone propionate (0.2 mg/kg/day, intramuscularly, for 5 days). The results suggest that, in the intact rat, androgens exert an inhibitory role on the contractility of the epididymal duct to ensure a proper rate of sperm transport.