SUMMARY

In this study, it was aimed to determine the histological and morphological differences in kidney tissue of young adult rats, which have been done orchiectomie. 36 male Sprague-Dawley rats were used as experimental material. The rats were divided into 4 subgroups, 2 control groups (n=16) and 2 experiment groups (n=20). The rats have been done orchiectomie which were in experiment subgroups. Nothing has been done to the rats which were in control subgroups at the same conditions with the experiment subgroups. Kidney tissue samples have been taken from both the control subgroups and experiment subgroups, one and two months after the orchiectomie process. In order to determine histometric changes Periodic Acid Schiff (PAS) proces has been done. Light microscope (Leica DMLB) bounded with Monitor Analysis System (Leica Q Win Standart) has been operated in morphometrical mesuring (the numbers of renal corpuscles per unit area and tubulus quantity, renal corpuscles, proximal tubule, henles loop and collecting tubule diameters) in order to observe the changes in kidney histology.

In this study, comparison between control groups and experiment groups we have observed PAS Positive cytoplasmic granules in the cells which compose the proximal tubules cytoplasm, high concentration in the experiment subgroups after orchiectomie process both one and two months later. The results are higher than the Control subgroups. According to the morphometric measurements,1 month after then the orchiectomie process while the numbers of renal corpuscles per unit area was increasing, the renal corpuscles, proximal tubule, henles loop and collecting tubule diameters reduced comparatively with the control groups. In the measurements 2 months after then the orchiectomie while the numbers of renal corpuscles per unit area and collecting tubule diameters were increasing, proximal tubule and henles loop diameters reduced. As a result, the effects of the orchiectomie process on the kidney histochemistry and morphometri changes were determined in this study.

Keywords: orchiectomie, kidney, morphometry, rat