



Poster

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## Histopathological alterations kidney in adult male rats that prenatally exposed to diclofenac sodium: A histopathological study

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### ABSTRACT

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In this study, we investigated the morphometric and histological alterations of the kidney in adult male rats that they were exposed to diclofenac sodium (DS) during pregnancy. For this purpose, pregnant rats were divided into two groups: the control and drug-treated groups. DS (Voltaren 75 mg/3 ml, Novartis, Turkey) was intraperitoneally injected to rats of the treated group beginning from the 5<sup>th</sup> day after mating through the 15<sup>th</sup> day of pregnancy. No injection was given to the rats in the control group. After spontaneous delivery, male offspring were obtained. Twelve weeks after from birth, kidney samples were removed from all animals. Following dissection and routine histological preparation, histopathological study was carried out. Our results indicate that DS application leads to pathological alterations in the kidney. Light microscopic investigation showed a dilatation in blood vessels and Bowman's space, degeneration in nephrons, including glomerulosclerosis and tubular defects, and an increase in the connective tissue in the kidneys of the DS treated group. We suggested that diclofenac sodium usage may lead to renal deformities as a result of histopathological changes such as dilatation, tubular defects, inflammation and connective tissue enlargement of the kidney. Finally, in light of our findings, we may suggest that DS may lead to adverse effects in rats that are prenatally subjected to this drug.

#### Keywords:

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