Original article:

**Effect of Febuxostat in Rat Liver**

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**ABSTRACT:**

**Introduction:** The study aimed to evaluate the microscopic changes in liver of adult Albino-Wistar rats administered with oral Febuxostat.

**Methodology :** 12 adult male Albino-Wistar rats weighing 180-220 g,Dimethyl Sulphoxide as solvent of the drug, Drug Febuxostat,Orogastric tube and Distilled water.Group AControl group comprising of 6 rats were given 10% Dimethyl Sulphoxide for 60 days. Group B Experimental group comprising of 6 rats were given 15 mg/kg Febuxostat orally for 60 days dissolved in 10% Dimethyl Sulphoxide. Group A and Group B animals were sacrificed after 60 days by cervical dislocation. The liver tissues were preserved in formalin, processed and stained with hematoxylin and eosin stain. The slides were examined under Olympus light microscope and the histological changes were seen. The slides were photographed using 6.1 Megapixel Nikon digital Camera.

**Results:** The histological changes in the liver of rats administered with drug Febuxostat were sinusoidal dilatation, central vein dilatation, parenchymal lymphocytic infiltration and haemorrhage and hepatocyte degeneration.

**Conclusion:** Hence the drug Febuxostat should be used carefully in those patients who have liver impairment before giving treatment for gout.

**Keywords:** Febuxostat, gout, liver, Albino-Wistar rats.