

Acute and subacute toxicity of *Ruta montana* extract on female rats: effect on liver and kidney.

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Ruta montana L. is an annual aromatic plant of the family rutaceae. Quantitative analysis of the methanolic crude extract of *Ruta montana* L. yielded a yield of 8,43%, whereas the qualitative analysis revealed the presence of alkaloid or coumarin. The Lichfield and Wilcoxon method calculated the LD50 of the crude methanolic extract of *Ruta montana* L. in Wistar albino female rats at 393,18 mg/kg. This allows the plant to be classified as moderately toxic. The subacute toxicity study of the methanolic crude extract of *Ruta montana* L. in female Wistar albino rats treated with 100 mg/kg ($\approx 1/4$ LD50) and intraperitoneally showed a significant increase in body weight of the rats treated at the 4th week. Animals treated and sacrificed after 30 days showed a disturbance of the relative mass of the organs. Biochemical parameters of hepatic function assessment showed a significant increase in ALP with elevation of AST and ALT, whereas those of renal function revealed a significant decrease in creatinine with an increase in urea. Hematologic parameters recorded a decrease in RBC, HGB and HCT. The histological sections of the treated rats reveal the existence of blood congestion in the central veins and liver tissues, foci of necrosis and steatosis in the liver, blood congestion and some glomerular atrophies in the kidneys, as well as blood congestions and developed follicles without oocytes in the ovaries.

Key words: *Ruta montana* L., toxicity, LD50, liver, kidneys, ovaries.