



## Renal and Hepatoprotective Effects of Silymarin against Salinomycin – Induced Toxicity in Adult Rabbits

**Dr Ahmed Hamdy**

*Desert Research center, Cairo, Egypt*

### Abstract:

The present study was carried out on forty nine adult male rabbits divided randomly into 7 groups (7 rabbits/each) that administrated salinomycin for consecutive 28 days through the oral route. 1st group were kept as control (receive 1 ml of CMC), 2nd group were given 20 mg salinomycin/kg ration dissolved in CMC, 3rd group were given 40 mg salinomycin/kg ration dissolved in CMC, 4th group were given 20 mg salinomycin/kg ration dissolved in CMC+6.5 mg silymarin/kg B.W dissolved in CMC, 5th group were given 40 mg salinomycin/kg ration dissolved in CMC+13 mg silymarin/kg B.W dissolved in CMC, 6th group were given 6.5 mg silymarin/kg B.W dissolved in CMC and 7th group were given 13 mg silymarin/kg B.W dissolved in CMC. At the end of the experiment, blood samples were obtained for sero-biochemical analysis of ALT, AST, creatinine, urea, total proteins, albumin, cholesterol, HDL and LDL. Livers were kept frozen at -20°C for detection of GSH, SOD, catalase and MDA. Samples from liver, kidney and heart were fixed for histopathology. Administrations of 20 mg or 40 mg salinomycin for 28 successive days caused a significant increase in AST, ALT, urea, creatinine, cholesterol, triglycerides and LDL activities and remarkable decrease of protein, albumin, and HDL. While administration of silymarin with 2 salinomycin in rabbits led to improvement of the previous parameters. Salinomycin (20 mg) induced a remarkable increase in MDA activity and a sig-



nificant decrease in GSH, SOD and catalase. When the silymarin (6.5 mg) was used in combination of salinomycin, it enhanced GSH, SOD and catalase levels and lowered the MDA. Salinomycin in high dose caused several pathological alterations in liver, kidney, and heart, while addition of silymarin improved the histological structure of these cells. In conclusion, this study highlighted the risk of salinomycin in rabbit feed. Other protective agents like silymarin should be used in feed to reduce the side effect of salinomycin as anticoccidial drug or feed additive in rabbits

### Biography:

Ahmed Hamdy, Desert Research center, Cairo, Egypt. is Submitted her abstract on the Webinar on Pharmaceutical Nanotechnology; September 22, 2020; Paris, France

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