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BOOK of ABSTRACTS

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HEPATOPROTECTIVE EFFICACY OF SUMMER SAVORY AGAINST CISPLATIN-INDUCED OXIDATIVE DAMAGE IN RATS

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Summer savory (*Satureja hortensis* L.) is an aromatic and medicinal plant, traditionally used as culinary spice. The aerial parts of summer savory are often used as herbal tea for the treatment of various gastrointestinal ailments, such as indigestion, cramps, and diarrhea. The positive effects of summer savory on human health have been attributed to its pharmacologically active constituents such as essential oil and phenolic compounds. The present study investigated the protective effect of methanolic extract of *S. hortensis* aerial parts against cisplatin-induced liver injury in rats. Wistar rats were treated *ad libitum* with extract at three different concentrations (50, 100 and 200 mg/kg body weight) for 10 consecutive days. Silymarin was used as a reference compound (100 mg/kg b.w.). Single dose of cisplatin was injected intraperitoneally on the 5^{th} day of the experiment. Positive (cisplatin) and negative (water) control groups were also analyzed. Also, one group received only extract at the dose of 200 mg/kg b.w.

Administration of *S. hortensis* extract significantly ($p < 0.05$) decreased the levels of serum ALT, AST, and γGT, and slightly elevated the level of serum total protein, as compared to the cisplatin group. The significant increase of liver SOD and CAT levels in the group treated with extract at 100 mg/kg b.w. was observed. These results are very similar with those obtained for silymarin+cisplatin group. However, at doses 50 and 200 mg/kg extract provides quite, but not statistically significant increase in SOD and CAT activities. The MDA level was statistically lower in all groups treated with extract. No differences in ALT, AST, γGT, SOD, CAT, and MDA levels were noted between control group and group treated with extract only.

The obtained results indicate that *S. hortensis* exerts remarkable hepatoprotective effect at concentration 100 mg/kg b.w. and can be considered as potential source for isolation of compounds with protective effect against liver injury.

Key words: *Satureja hortensis* L., cisplatin, oxidative damage, liver damage
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