**Mitigation of arsenic driven ovarian toxicity by VenoVine® (*Vitis vinifera* L. extract) administration**

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**‌ Statement of Problem:** VenoVine®, as a mitigation agent, contains dry extract of red grape leaves and is a natural agent of increasing interest in the treatment of toxic compounds. On the other hand, arsenic, a toxic metallic element widespread in the environment, mediated female reproductive dysfunctions.

**Research Purpose:** This study aimed to examine the remedial potential of VenoVine® against arsenic-instigated ovotoxicity in adult female rats.

**Research Method:** To do this study, Wistar rats (N = 28) were randomly allocated into four groups: control group, arsenic (10 mg/kg) group, VenoVine® (100 mg/kg) + arsenic (10 mg/kg) group, and VenoVine® (100 mg/kg) group. After 45 days of treatment, biochemical assay, estrogen, progesterone, and LH levels, and also histopathological profile of ovarian architecture were estimated.

**Results and Conclusion:** Arsenic intoxicated group exhibiteddetrimental changes in the ovarian histo-morphology and also remarkable increase in the levels of estrogen and LH. Arsenic intoxication also accomplished with significant increase in the malondialdehyde along with decreases in the catalase and superoxide dismutase activities. Otherwise, VenoVine® treatment exerted its positive action against arsenic intoxication by decrease of malondialdehyde, increase of superoxide dismutase activity, and restoration of estrogen levels. These results confirm protective effects of VenoVine® against arsenic.

**Keywords:** VenoVine® (*Vitis vinifera* L. extract), Arsenic, Ovary, Histology.

References

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