



3rd INTERNATIONAL CONFERENCE ON CARDIOLOGY

November 30-01 December, 2023 | Dubai, UAE

TITLE: The Effect of a Fraction of the Methanol Extract of the Seeds of *Abrus Precatorius* on Malondialdehyde and Antioxidant Levels of Alloxan-Induced Diabetic Rats

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ABSTRACT (upto300 words)

This study evaluated the effect of fraction 2 (F2) of methanol extract of the seeds of *Abrus precatorius* on malondialdehyde and antioxidant levels of alloxan-induced diabetic Wistar rats. The methanol extract of the seeds of *A. precatorius* was fractionated by Sephadex G15. Diabetes was induced by a single intraperitoneal administration of alloxan at a dose of 150 mg/kg body weight. The phytochemical analysis and the biochemical parameters were investigated using standard methods. Both qualitative and quantitative analysis of F2 revealed the presence of high amounts of alkaloids (2000 ± 80 mg/100 g), flavonoids (158 ± 17.6 mg/100 g), and tannins (258 ± 45 mg/100 g) but low concentration of saponins (18.3 ± 2.43 mg/100 g). The malondialdehyde (MDA) level of all the test groups and the group treated with the standard drug decreased significantly ($p < 0.05$) compared with that of the untreated diabetic group. However, the catalase activity in all the test groups significantly increased ($p < 0.05$) while the activity of superoxide dismutase increased significantly ($p < 0.05$) in groups administered 20mg/kg of the fraction and the group pre-treated with 10mg/kg of the fraction compared with the diabetic untreated group. Similarly, the result revealed a significant increase ($p < 0.05$) in non-enzymatic antioxidants such as reduced glutathione and vitamin E of the rats treated with graded doses of F2 while vitamin C showed a significant ($p < 0.05$) increase in normal control groups and pre-treated groups compared with the diabetic untreated. Studies on membrane stabilization using hypotonicity-induced red blood cell hemolysis revealed that the F2 of the methanol extract of the seeds of *A. precatorius* inhibited hemolysis in a dose-dependent manner. The results obtained from this study revealed that the F2 of the methanol extract of *A. precatorius* contains important phytochemicals found in it. It also showed improvement in antioxidant defense and a stabilizing effect on the membrane.

BIOGRAPHY (upto200words)

Ebele Iloanya is almost rounding up with her PhD Program at Chukwuemeka Odumegwu Ojukwu University, Anambra State Nigeria. She is the Chairman of, the Faculty of Biosciences Library Committee, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria. She has not less than 13 publications that have been cited over 90 times.

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Mode of Presentation: Oral/Poster.

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