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## Renal and hepato-protective effect of *Irvingia gabonensis* juice on sodium fluoride-induced toxicity in Wistar rats

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Renal and hepato-protective effect of *Irvingia gabonensis* juice on sodium fluoride-induced toxicity in Wistar rats: Twenty-four male albino rats divided into 4 groups of 6 animals each and all, except normal control (NC), were intoxicated with 20 mgK<sup>-1</sup> body weight of sodium fluoride (NaF) daily by gavage for 35 days. Sodium fluoride control group (NaFC) received only the toxicant. Test group (IG) received *I. gabonensis* juice concurrently with the toxicant, while the standard control (Q + Vit. E) received concurrently, 15 mgK<sup>-1</sup> body weight Quercetin+100 mgK<sup>-1</sup> bodyweight  $\alpha$ -tocopherol throughout the 35 days. Normal control (NC) received only standard pelletized diet and water. Serum aspartate aminotransferase (AST), alanine aminotransferase (ALT), total protein, albumin, total cholesterol, serum creatinine and electrolyte levels were assayed among test, standard and control animals. *Irvingia gabonensis* significantly ( $p < 0.05$ ) reduced AST activity in the IG group (137.68 $\pm$ 12.66 U/L) compared to NaFC group (175.12 $\pm$ 10.63 U/L). This compares to the reduction in the standard (Q+ Vit. E) group (135.69 $\pm$ 10.66 U/L). ALT activity was also reduced in the IG group. Effects of *I. gabonensis* on albumin and cholesterol levels were similar to that of the standard group. Administration of *I. gabonensis* also significantly ( $p < 0.002$ ) reduced elevated creatinine and Cl<sup>-</sup> concentrations, while significantly ( $p < 0.05$ ) elevating serum Ca<sup>2+</sup> and Mg<sup>2+</sup> ion levels. *I. gabonensis* fruit juice has some renal and hepato-protective potential which may be due to the presence of secondary plant metabolites like flavonoids, tannins and alkaloids found in the plant. The fruit is also rich in Ca<sup>2+</sup> and Mg<sup>2+</sup>. Increased domestication is encouraged.

### Biography

Emejulu A A completed her PhD in 2012 from the Federal University of Technology, Owerri (FUTO) Nigeria, where she is a lecturer and researcher in the Department of Biochemistry. She has up to 18 publications in both local and international reputed journals to her credit. She is an officer of the Organization for Women in Science for the Developing World, FUTO chapter.

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