Antioxidant and Anti-ulcer Potential of Aqueous Leaf-extract of *Kigelia africana* Against Ethanol-induced Ulcer in Rats

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**INTRODUCTION:** Gastric ulcers affect a considerable number of people in the world. The mechanisms which trigger gastric lesions have been studied in various experimental models. Ethanol is known to produce gastric damage by impairing gastric defensive factors, such as mucus and mucosa circulation. Moreover, free radicals and lipid peroxidation are thought to be involved in the ethanol-induced gastric damage. In this context, both synthetic and natural antioxidants have been used to treat and prevent gastric damage. *Kigelia africana* belongs to the family Bignoniaceae and in the South-western part of Nigeria hot-infusion of its leaves are popularly used to treat stomach ulcer. Of particular importance, *K. africana* has both *in vitro* and *in vivo* antioxidant properties and there was no literature data about the participation of the antioxidant effect of this plant on its antiulcer action. Then, this work was designed to evaluate the effectiveness of aqueous leaf extract from *K. africana* in reducing stomach ulcer index and oxidative stress parameters induced by ethanol in rats.

**MATERIAL AND METHODS:** Male albino rats were divided in six groups that received, orally by gavage, a single dose of ethanol (or distilled water in control group) or ethanol and after the aqueous-leaf extract of *K. africana* (1.75, 3.5, 7 and 14 mg/kg). One hour after the administration of extracts, the animals were killed and stomach tissue removed to ulcer index quantification and oxidative parameters like TBARS production and ascorbic acid content determination.

**RESULTS AND DISCUSSION:** Aqueous-leaf extract of *K. africana* treatment was able in decreasing ulcer index in a dose dependent manner. Ethanol caused oxidative damage in stomach tissue, which was blunted by *K. africana* at all doses evaluated. **CONCLUSION:** Taken together, the results obtained here indicated the anti-ulcer potential of *K. africana*, which validates its popular use in the treatment of gastrointestinal ailments.

Key words: *Kigelia africana*, ethanol, antioxidant activity, gastric damage

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