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Anti-fertility activity of *Bambusa vulgaris* aqueous leaf extract in male Wistar rats

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Globally, there is a need for family planning as a result of increasing human population growth rate with its undesirable impact on the environment, economic growth and poverty in several parts of the world most especially in the underdeveloped countries. Ninety percent of the world's contraceptive users are women, probably due to the slow progress in development and limited possibilities of male contraceptives. Several medicinal plants have been implicated as anti-fertility in males but only a few have been investigated. *Bambusa vulgaris* L (Poaeceae), commonly known as "Bamboo" is found in tropical and sub-tropical areas. It is commonly referred to as 'Oparun', 'Iko', and 'Atosin' among the Yoruba, Bini and Igbo tribes of Nigeria, respectively. Ethno-botanical study of anti-fertility medicinal plants used by the people of Kathijavadi village in India revealed that the extract of *B. vulgaris* leaves is taken orally to reduce sperm count. Therefore, the study seeks to provide scientific justification to the acclaimed sperm reducing potentials of *B. vulgaris* leaf in male Wistar rats. Male Wistar rats were administered with 250 (n=12) and 500 mg/kg (n=24) of *B. vulgaris* leaf ethanol extract for 14 and 28 days, distilled water acting as negative control and 6 rats each were sacrificed at the end of 14 and 28 days, separately. They were evaluated for sperm concentration, motility, Testosterone (T), Leutinizing (LH) and Follicle Stimulating Hormones (FSH), histology of the testes was also carried out. The remaining of the rats administered with 500 mg/kg for 28 days were kept and allowed free access to feed and water while extract administration was withdrawn. Six rats were sacrificed weekly and sperm concentration and motility were evaluated for probable reversal of activity. There were 42 and 31% reduction in sperm count at 14 and 28 days, respectively in rats administered with 250 mg/kg while at 500 mg/kg dose, the percentage reduction in sperm count was 60% and there was almost a complete reversal of activity 14 days after cessation of treatment. The result justified the ethno-botanical claim of the use of *B. vulgaris* leaf in reducing sperm count.

Biography

Gideon O Alade is working as Assistant Professor of Department of Pharmacognosy at Niger Delta University, Nigeria.

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