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Data Article

Phytochemical screening and antioxidant parameters data in prostatic rats fed with *Laportea aestuans* leaves

Omotosho Omolola E.*, Oladipupo O. Ogunlade, Abiodun O. Salako

Department of Biochemistry, Covenant University, P.M.B. 1023, Km. 10, Idiroko road, Canaan land, Ota, Ogun State, Nigeria

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ABSTRACT

Several plants have been used in ancient times as medicines to treat, manage and prevent many diseases in various traditional settings throughout the world. The effect of administration of hydro-ethanolic extract of *Laportea aestuans* (La) leaves at different doses in Wistar rats induced with benign prostatic hyperplasia (BPH) using antioxidant parameters and phytochemical screening data was obtained. Thirty (30) animals were randomly divided into six (6) groups (A-F) of five (5) animals each. BPH was induced in the animals by daily subcutaneous injection of testosterone propionate (TP) (3 mg/kg) in olive oil and administration of treatments for four (4) weeks were done concurrently. Group A received olive oil alone subcutaneously, group B was induced with BPH alone, groups C-E were induced with BPH but received different doses of La at 100, 200 and 400 mg/kg. Lastly, group F was induced with BPH but treated with finasteride (5 mg/kg) which serves as the positive control group. Phytochemical screening data of saponins, flavonoids (0.5010 ± 0.0009 mg/ml), alkaloids (0.528 mg/ml), phenols (0.6195 ± 0.0015 mg/ml), tannins (0.5410 ± 0.0013 mg/ml) and steroids (1.6230 ± 0.0210 mg/ml) in hydro-ethanolic extract of La. Antioxidant parameters such as superoxide dismutase, catalase and reduced glutathione data were alsoμ gotten at 400 mg/kg La (48.1 ± 4.17U/mg protein), (29.43 ± 1.38U/mg protein) and (30.60 ± 2.05 μg/ml) respectively when

* Corresponding author.
E-mail addresses: lola.omotosho@covenantuniversity.edu.ng (O. Omolola E.), ogdipo@yahoo.com (O.O. Ogunlade), salakoabiodun23@gmail.com (A.O. Salako).

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compared to the BPH group (35.5 ± 0.97U/mg protein), (11.36 ± 2.39U/mg protein) and (15.60 ± 1.14 μg/ml).

Specifications Table

Subject area	Biochemistry
More specific subject area	Pharmacology and medicinal plant research
Type of data	Tables
How data was acquired	mean ± SEM, spectrophotometer, weighing balance, rotary evaporator.
Data format	Raw, Analysed
Experimental factors	*Laportea aestuans* was macerated, soaked in 80% ethanol and extracted using rotary evaporator. Animals (Wistar rat) gotten were acclimatized, induced with benign prostatic hyperplasia and treated with *Laportea aestuans* and finasteride.
Experimental features	Quantitative and qualitative phytochemical screening was assayed on plant sample, antioxidant parameters such as catalase, superoxide dismutase and reduced glutathione was assayed on animal plasma of different groups.
Data source location	Ota, Ogun State, Nigeria
Data accessibility	Data available within the article

Value of the data

- The data presented gives the quantitative assessment of certain phytochemicals responsible for the beneficial property of *Laportea aestuans* being used as an anti-hyperplastic agent.
- The data given may correlate with the results obtained using same plant in other regions.
- Data given can influence the development of a new drug against benign prostatic hyperplasia without extravagant side unlike finasteride.
- The data obtained from antioxidant assays may correlate with data obtained in other regions with a different plant or similar plant.

1. Experimental design, materials and methods

1.1. Plant material

Fresh *Laportea aestuans* were collected within Sango-Ota, Ogun State, Nigeria and was identified (UIH-22638) at the Botany Department of University of Ibadan, Ibadan, Oyo State, Nigeria. The leaves were picked from the branch, air dried and ground to powdered form before use. The pulverized leaves were weighed (600 g), soaked for 3 days in 80% ethanol, sieved and extracted (32 g) using a rotary evaporator.

1.2. Phytochemical screening

Qualitative and quantitative phytochemical screening was carried out according to the method described by [7,8] respectively. Quantitative phytochemical screening of total phenol was carried out at a wavelength of 765 nm, tannins at 640 nm, steroid at 640 nm and flavonoid at 415 nm.