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## ANTICONVULSANT STUDIES ON *COCHLOSPERMUM* *TINCTORIUM* AND *PAULLINIA PENNATA* EXTRACTS IN LABORATORY ANIMALS

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### ABSTRACT

*Cochlospermum tinctorium* (Cochlospermaceae) and *Paullinia pinnata* (Sapindaceae) are widely used medicinal plants in Northern Nigeria in the management of epilepsy. The hydroalcoholic root bark extract of *Cochlospermum tinctorium* and methanolic stem bark extract of *Paullinia pinnata* were investigated for anticonvulsant activities using Maximal electroshock test in chicks, Pentylenetetrazole and Strychnine-induced seizures, in mice. The *Paullinia pinnata* extract produced a dose-dependent protection (50%, 60% and 70%) against maximal electroshock at doses tested (125, 250 and 500 mg/kg) while the *C. tinctorium* extract did not protect the animals at the doses tested (5, 10 and 20 mg/kg). The two extracts did not protect the animals against strychnine-induced seizure. Both extracts protected 20% of the animals against pentylenetetrazole-induced seizure at the highest doses tested. This study suggests that the aqueous methanolic stem bark extract of *P. pinnata* contains bioactive constituents that may be beneficial in grand mal epilepsy and lend pharmacological credence to the ethnomedical claim for the use of the plant in the management of this epilepsy.

**Key Words:** *Paullinia pinnata*, *Cochlospermum tinctorium*, Seizure, Maximal electroshock, Pentylenetetrazole, Strychnine

### INTRODUCTION

Epilepsy is a chronic brain disorder characterized by recurrent derangement of the nervous system due to sudden excessive disorderly discharge from the cerebral neurons (Kabir *et al.*, 2005). It is the second most common neurological disorder attended to by neurologists (Sridharan, 2002). The estimated

prevalence of epilepsy in Nigeria is 8 to 13 per thousand people (Azubuike and Nkanginieme, 1996). About 30% of epilepsy is refractory to treatment (WHO, 2001). Many people in developing countries may not receive basic treatment due to high cost, unavailability and untoward effects associated with the available

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### **Table of Contents Full Paper Ahmadu Bello University**

1. Understanding the eBook Full Paper Ahmadu Bello University
  - The Rise of Digital Reading Full Paper Ahmadu Bello University
  - Advantages of eBooks Over Traditional Books
2. Identifying Full Paper Ahmadu Bello University
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Full Paper Ahmadu Bello University
  - User-Friendly Interface
4. Exploring eBook Recommendations from Full Paper Ahmadu Bello University
  - Personalized Recommendations
  - Full Paper Ahmadu Bello University User Reviews and Ratings
  - Full Paper Ahmadu Bello University and Bestseller Lists

5. Accessing Full Paper Ahmadu Bello University Free and Paid eBooks
  - Full Paper Ahmadu Bello University Public Domain eBooks
  - Full Paper Ahmadu Bello University eBook Subscription Services
  - Full Paper Ahmadu Bello University Budget-Friendly Options
6. Navigating Full Paper Ahmadu Bello University eBook Formats
  - ePub, PDF, MOBI, and More
  - Full Paper Ahmadu Bello University Compatibility with Devices
  - Full Paper Ahmadu Bello University Enhanced eBook Features
7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Full Paper Ahmadu Bello University
  - Highlighting and Note-Taking Full Paper Ahmadu Bello University
  - Interactive Elements Full Paper Ahmadu Bello University
8. Staying Engaged with Full Paper Ahmadu Bello University
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Full Paper Ahmadu Bello University
9. Balancing eBooks and Physical Books Full Paper Ahmadu Bello University
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Full Paper Ahmadu Bello University
10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
11. Cultivating a Reading Routine Full Paper Ahmadu Bello University
  - Setting Reading Goals Full Paper Ahmadu Bello University
  - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Full Paper Ahmadu Bello University
  - Fact-Checking eBook Content of Full Paper Ahmadu Bello University
  - Distinguishing Credible Sources
13. Promoting Lifelong Learning

- Utilizing eBooks for Skill Development
  - Exploring Educational eBooks
14. Embracing eBook Trends
- Integration of Multimedia Elements
  - Interactive and Gamified eBooks

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