About this document

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- FF003 - Horticultural Crops, (New March 2000)
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- HH405 - Pesticides and Drugs; Control, (New March 2000)
- SS200 - Non-food/Non-feed Plant Products
- VV210 - Prion, Viral, Bacterial and Fungal Pathogens of Humans, (New March 2000)
- VV400 - Animal Models of Human Diseases, (New March 2000)
- VV450 - Animal and in vitro Models for Pharmaceuticals, (New March 2000)

Organism descriptor
- Bacteria
- Commelinaceae
- guineapigs
- mice
- Staphylococcus aureus
- Streptococcus pyogenes

Descriptor
• anaesthetics
• animal models
• antibacterial properties
• chemical composition
• flavonoids
• glycosides
• Gram positive bacteria
• in vitro
• leaves
• pharmacology
• plant composition
• plant extracts
• protein content
• tannins
• toxicity

Identifier
• anesthetics
• bactericidal properties
• bacterium
• chemical constituents of plants
• Gram-positive bacteria
• guinea pigs
• heterosides
• Palisota
• Palisota hirsuta
• tannic acid

Broad term
• Bacteria
• prokaryotes
• Commelinales
• monocotyledons
• angiosperms
• Spermatophyta
• plants
• eukaryotes
• Cavia
• Caviidae
• rodents
• mammals
• vertebrates
This study investigated some pharmacological properties of methanolic extract of *Palisota hirsuta* Reichb. ex Endl (Commelinaceae) leaves using *in vitro* and *in vivo* methods. Acute toxicity study of the extract gave an oral LD$_{50}$ of 260.6 mg/kg, b.w. in fasted mice. Oral administration of the extract in mice significantly (p<0.05) increased pentobarbital-induced sleeping time at all doses used. The extract (50 mg/kg, b.w., p.o.) significantly (p<0.05) increased the percent analgesia in tail flick test, which was superior to morphine (12 mg/kg, b.w., s.c.) at 90 and 120 min post administration. Similarly, the extract (50 and 150 mg/kg, b.w., p.o.) significantly (p<0.05) reduced the number of acetic acid-induced abdominal contortions. At 50 mg/kg extract caused 97% inhibition of abdominal contortions compared to indomethacin (10 mg/kg, b.w., p.o.). It exhibited concentration-dependent local anesthetic effect on the guinea pig skin at 3.0, 9.0, and 27.0 mg/ml and also inhibited the growth of Gram positive bacteria mainly *Streptococcus pyogenes* and *Staphylococcus aureus*, with MIC values of 312.5 and 625.0 µl/ml respectively. Chemical constituents of the extract include tannins, flavonoids, glycosides and proteins. In conclusion, methanolic extract of *P. hirsuta* leaves exhibited marked antinociceptive, local anesthetic and narrow spectrum antibacterial properties, which justified its ethnomedical uses.