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Mondia whitei (Periplocaceae) prevents and *Guibourtia tessmannii* (Caesalpiniaceae) facilitates fictive ejaculation in spinal male rats

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Background: *Mondia whitei* and *Guibourtia tessmannii* are used in Cameroon traditional medicine as aphrodisiacs.

The present study was undertaken to evaluate the pro-ejaculatory effects of the aqueous and organic solvent extracts of these plants in spinal male rats.

Methods: In spinal cord transected and urethane-anesthetized rats, two electrodes were inserted into the bulbospongiosus muscles and the ejaculatory motor pattern was recorded on a polygraph after urethral and penile stimulations, intravenous injection of saline (0.1 ml/100 g), dopamine (0.1 µM/kg), aqueous and organic solvent plant extracts (20 mg/kg).

Results: In all spinal rats, urethral and penile stimulations always induced the ejaculatory motor pattern. Aqueous or hexane extract of *Mondia whitei* (20 mg/kg) prevented the expression of the ejaculatory motor pattern. The pro-ejaculatory effects of dopamine (0.1 µM/kg) were not abolished in spinal rats pre-treated with *Mondia whitei* extracts. Aqueous and methanolic stem bark extracts of *Guibourtia tessmannii* (20 mg/kg) induced fictive ejaculation characterized by rhythmic contractions of the bulbospongiosus muscles followed sometimes with expulsion of seminal plugs. In rats pre-treated with haloperidol (0.26 µM/kg), no ejaculatory motor pattern was recorded after intravenous injection of *Guibourtia tessmannii* extracts (20 mg/kg).

Conclusion: These results show that *Mondia whitei* possesses preventive effects on the expression of fictive ejaculation in spinal male rats, which is not mediated through dopaminergic pathway; on the contrary, the pro-ejaculatory activities of *Guibourtia tessmannii* require the integrity of dopaminergic system to exert its effects.

The present findings further justify the ethno-medicinal claims of *Mondia whitei* and *Guibourtia tessmannii*.

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