

Suppression of benign prostate hyperplasia by *Kaempferia parviflora* rhizome

Kazuya Murata, Hirotaka Hayashi, Shinichi Matsumura, Hideaki Matsuda

Faculty of Pharmacy, Kinki University, 3-4-1 Kowakae, Higashiosaka, Osaka 577-8502

ABSTRACT

Background *Kaempferia parviflora* rhizome is used as a folk medicine in Thailand for the treatment of various symptoms. In the present study, the inhibitory activities of extract from *K. parviflora* rhizome against 5 α -reductase (5 α R) were subjected. Furthermore, the effects of the extract from *K. parviflora* rhizome in benign prostate hyperplasia (BPH) were studied using the model mice. Materials and Methods Preparations of extracts from the rhizomes of *K. parviflora*, *Curcuma zedoaria* and *Zingiber officinale*, and methoxyflavones isolated from *K. parviflora* was used for 5 α R inhibition assay. The effects of *K. parviflora* extract on growth suppression for the prostates and seminal vesicles were performed based on the Hershberger's method. The *K. parviflora* extract was administered to castrated mice for 14 days. Results *K. parviflora* extract showed more potent inhibitory activity on 5 α R than *C. zedoaria* and *Z. officinale* extracts. The active principles were identified as 3,5,7,3',4'-pentamethoxyflavone and 5,7,3',4'-tetramethoxyflavone by activity guided fractionation. Furthermore, *K. parviflora* extract suppressed the weights of prostates and seminal vesicles in BPH model rats by daily administration for 14 days. Conclusion These results indicate that *K. parviflora* extract can be a promising agent for the treatment of BPH.

KEYWORDS

5 α -reductase . benign prostate hyperplasia . *Kaempferia parviflora* . methoxyflavone

REFERENCES