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FLAVONOID CONTENT OF PIPER SARMENTOSUM

Azizah U¹, Zaiton Z¹, Chua KH¹, Nor Anita MMN¹, Zaleha AM²

Department of ¹Physiology and ²Obsterics and Gynaecology, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia.

Background:

Previous studies have shown a relationship between a diet rich in flavonoid and a reduced incidence of cardiovascular diseases. *Piper sarmentosum* (PS) or locally known as daun kadok is a tropical plant with antioxidant, anti-inflammatory and anti-atherosclerotic activities. It is suggested that the cardiovascular protective effects of PS is related to its flavonoid content. Therefore this study aims to investigate the flavonoid content of aqueous extract of PS.

Materials and Methods:

Dried PS leaves were boiled with purified water at 80°C for three hours to extract its water soluble contents. The extract was then filtered, concentrated and freeze-dried to powder. The extract was dissolved and analysed by means of a HPLC system (Waters Delta 600 with 600 Controller) with photodiode array detector (Waters 996). The retention times and UV absorption characteristics of major peaks in the chromatograms of the extract were compared with those of standards (naringin, genistein, fisetin, myricetin, vitexin, isovitexin, apigenin, rutin and naringenin).

Results:

The peaks in the chromatogram of the extract corresponded to rutin and vitexin. The extract was spiked with rutin and vitexin and the results confirmed the presence of rutin and vitexin.

Conclusion:

Aqueous extract of PS leaves contains the flavonoid rutin and vitexin.

Keywords:

Piper sarmentosum, flavonoid, rutin, vitexin