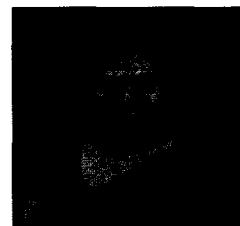




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A STUDY OF THE EFFECT OF ETHYLACETATE SOLUBLE PROANTHOCYANIDINS ON HISTOLOGICAL CHANGES OF FEMALE RAT ENDOMETRIUM

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ABSTRACT

Proanthocyanidins are secondary metabolites found in plants and they belong to a class of polyphenolic compounds called flavonoids. Proanthocyanidins have been reported to exhibit diverse biological activities. We have previously reported the extraction, purification, characterization and progestrogenic activity of ethyl acetate soluble proanthocyanidins (EASPA) in the inflorescence of *Cocos nucifera* L. EASPA was evaluated for its effect on histological changes of female rat endometrium during proestrous and oestrous phases of the reproductive cycle. EASPA (0.33 mg/day) dissolved in water was administered orally to female rats for 28 consecutive days. At the end of the study period, uteri were dissected and subjected to histological studies. There were no detectable histological changes of the endometrium of the test group rats compared to that of the respective control groups. This may be due to an inadequacy of the dose and time duration that EASPA was administered to female rats. This may also be due to the reproductive cycle of the rats being different to that of humans and the histological changes of the endometrium of female rats being independent of the increase in the progesterone levels after administration of EASPA.

KEYWORDS

Proanthocyanidins, Menorrhagia, Histology, Proestrous phase, Oestrous phase and Endometrium.

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INTRODUCTION

Cocos nucifera L., the coconut palm is found widely distributed in the Asian continent and in parts of South America and Africa¹. It is a member of the monocotyledonous family Arecaceae (Palmae) and is the only species of the genus. Coconut palm is a cultivated crop in Sri Lanka, which is a major producer of coconut in the world.

In Sri Lanka, the immature inflorescence of *Cocos nucifera* L. is used by Ayurvedic and traditional