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PEGAGAN (Centella asiatica) EXTRACT INCREASES VAGINAL WALL THICKNESS IN MENOPAUSAL RATS

PEGAGAN (Centella asiatica) EXTRACT INCREASES VAGINAL WALL THICKNESS IN MENOPAUSAL RATS

1. Abkar Raden --> Department of Obstetrics and Gynecology, Faculty of Medicine, Sebelas Maret University, Dr Moewardi Hospital, Surakarta

Abstract

Painful intercourse (dyspareunia) is one of the complaints that are often found in menopausal women due to decreased collagen and atrophy vaginal wall. This can lead to domestic disharmony because of divorce, affairs and domestic violence. To prevent these complaints needs estrogen therapy or phytoestrogens. Centella asiatica is a phytoestrogen that increase proliferation and collagen thickening in vaginal wall. However, the mechanism of thickening and increasing collagen of vaginal wall has not been clear. This study aims to explain the mechanism of thickening due to proliferation and maturation of epithelial and collagen synthesis increased vaginal wall of Rattus norvegicus that experienced a given ovariectomy. The research method is experimental design with posttest only control group design, by 35 female rats of Rattus norvegicus age of 4 months, weight 290-300 grams, conducted randomized into 4 groups, each group was seven rats. All groups performed ovariectomy. Group-1 weren't given extract of Centella asiatica. Group-2, 3, 4 were given extracts of Centella asiatica on day 22 post-ovariectomy with a dose of 30mg, 60mg, 120mg/Kbw/day for 40 days orally. Immunohistochemical examination to see the expression of estrogen receptor beta-producing cells (ER-ß) and collagen-producing cells. Histological examination to see thickening of the vaginal wall. Results were analyzed using univariate analysis showed an increase in epithelial proliferation, maturation of the vaginal wall was significant (p<0.05), increased estrogen receptor beta and collagen was significantly (p<0.05). It can be concluded that administration of Centella asiatica extract can increase epithelial proliferation of the vaginal wall through the mechanism of increased estrogen receptor beta and collagen.

Keyword : Centella, asiatica, vaginal, epithelial, proliferation, collagen, synthesis, phytoestrogen,

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