ABSTRACT

Ovarian hormone deficiency is a major risk factor for osteoporosis in menopausal women. Hormone replacement therapy (HRT) using estrogen perhaps the most effective treatment. Menopausal women are more inclined to use natural remedies to alleviate menopausal symptoms and help reduce their risk for chronic diseases such as osteoporosis. Pegagang is one of phytoestrogens that is able to inhibit bone resorption. It is expected that pegagang administration may result changes in the blood calcium serum. So far, the changes blood calcium serum level remain unclear. The objective of this study was to explain the process mechanism changes blood calcium serum level due to pegagang extract-receiving ovariectomized Wistar-strain Rattus norvegicus rats. This was an experimental study, twenty-one female rats, aged three months and bodyweight of two hundred grams, were ovariectomized. The rats were randomized into three groups, each consisting of seven rats. Group TO received no pegagang extract, on day 21 postovariectomy. Groups TO 60, and TO 120 received pegagan extract on day 21 post-ovariectomy in the following doses: 60 mg, and 120 mg/Kgbw/day, respectively, per oral for twenty days. On day 41 post-ovariectomy, the rats were sacrificed for blood sample. Calcium serum analyze using cresolphthalein method. Data were analyzed by One-way analysis of variance. Results of this research was concluded that ingestion of pegagang contains phytoestrogen not significantly different affected calcium serum level after ovariectomy in rats.

Key words: osteoporosis, estrogen, pegagang, ovariectomy, phytoestrogen.