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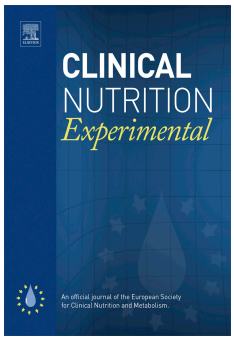

Effects of Labisia pumila on bone turnover markers and OPG/RANKL system in a rat model of post-menopausal osteoporosis

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The purpose of the present study was to analyze the effects of *Labisia pumila* extract on bone turnover markers and OPG/RANKL system in ovariectomized rats.

- Totally, twenty-five female Wistar rats were divided into five tgroups (n = 5), including the control group, ovariectomized group, ovariec-tomized group treated with *Labisia pumila* extract of various doses (10 mg/kg; 20 mg/kg and 40 mg/kg).
- *Labisia pumila* extract was administered daily for 8 weeks.
- Serum levels of osteocalcin, urine levels of deoxypiridinoline, serum levels of OPG and RANKL were analyzed by means of ELISA technique.

In conclusion, the ethanol extract of *Labisia pumila* normalized osteoblastic bone formation, but could not prevent collagen degradation in bone in a rat model of post-menopausal osteoporosis.

- Serum levels of deoxypiridinoline and urine levels of osteocalcin were significantly higher in the ovariectomized group than those of the control group (p <0.05).
- All doses of *Labisia pumila* significantly reduced serum levels of osteocalcin compared to the ovariectomized group, reaching the levels comparable to those of the control group (p <0.05).
- Only the highest dose of *Labisia pumila* significantly increased the levels of deoxypiridinoline relative to the ovariectomized and control groups (p < 0.05).
- The levels of OPG and RANKL and the ratio of OPG/RANKL did not differ significantly among the treatment groups (p > 0.05).