

Labisia pumila regulates bone-related genes expressions in postmenopausal osteoporosis model

ABSTRACT

Labisia Pumila var. alata (LPva) has shown potential as an alternative to estrogen replacement therapy (ERT) in prevention of estrogen-deficient osteoporosis. In earlier studies using postmenopausal model, LPva was able to reverse the ovariectomy-induced changes in biochemical markers, bone calcium, bone histomorphometric parameters and biomechanical strength. The mechanism behind these protective effects is unclear but LPva may have regulated factors that regulate bone remodeling. The aim of this study is to determine the bone-protective mechanism of LPva by measuring the expressions of several factors involved in bone formative and resorptive activities namely Osteoprotegerin (OPG), Receptor Activator of Nuclear Factor kappa-B Ligand (RANKL), Macrophage-Colony Stimulating Factor (MCSF) and Bone Morphogenetic Protein-2 (BMP-2).

Keyword: Labisia pumila; Postmenopausal osteoporosis; Estrogen replacement therapy; Postmenopausal osteoporosis model