The Effect of Cissus Quadrangularis on Bone Markers in Osteopenia Women: A Randomized Double-Blind Placebo Controlled Trial

Context: Osteoporosis is one of the problems in elderly Thai women. The cost of treatment is very high. Cissus quadrangularis is traditionally used for treatment of bone disease in Hindu and Thai herbal medicine.

Objective: to investigate the effect of Cissus quadrangularis on bone marker levels in postmenopausal women with osteopenia

Method
Participants were randomly allocated into 2 groups, control and CQ. Serial numbered opaque, and sealed envelopes were established by a statistician according to a computer-generated block randomization. These corresponding envelopes were opened by a nurse at the outpatient department unit after patient enrollment.

Patient
Thirty eight women signed informed consent to participate in study.

Intervention
The participants were allocated to receive either oral CQ capsule 400 mg twice a day (treatment group) or placebo capsule (control group).

Main outcome Measure(s)
Pre-treatment and post-treatment value of liver function test, creatinine (Cr) level, procollagen type 1 N propeptide (P1NP), and collagen type 1 cross-linked C-telopeptide (CTX) were measured in both groups.

Results: P1NP was statistically significant decreased compared with pre-treatment level in treatment group. CTX was increased but not statistically significant. No significant change of liver enzyme and creatinine level was demonstrated.

Conclusions: Cissus quadrangularis may mediate either bone formation or combined bone formation and resorption effects. There was also no effect of Cissus quadrangularis on liver enzyme and creatinine level. Further studies are needed to clarify the anti-osteoporotic effect and fracture prevention of Cissus quadrangularis and fracture prevention.