the ability of software BHC to remove density artefacts. Meaningful microCT bone densitometry is possible provided that scans are made with suitable fil-
ter, appropriate BH correction is applied, x-ray absorption outside the cam-
era field of view (truncation) is minimal, and that as far as possible sample
(and calibration phantom) dimensions and mounting are standardised. Densi-
tometry is more accurate in the absence of surrounding media such as water
or tissue.

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A MULTICENTER, RANDOMIZED, DOUBLE-BLIND, AND PLACEBO-
CONTROLLED STUDY OF CHINESE ZUOGUI PILL AND YOGUILL PILL FOR
IMPROVING BONE MINERAL DENSITY
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Background: Natural herbal therapy offers an alternative attractive for osteoporosis. The objective of this study is to evaluate the efficacy and safety of Chinese herbal, Zougui Pill (ZGP) and Yougui Pill (YGP), for low bone mineral density (BMD). Methods: 200 subjects were included double-blindly and randomly allocated into two groups, treatment and control. All subjects were diagnosed with low BMD and kidney deficiency in Traditional Chinese Medicine (TCM). Subjects in treatment group were treated for 6 months with either ZGP or YGP based on clinical characters of TCM, while control group received placebo for the same period of time. Primary outcome was lumbar BMD as determined by using dual-energy x-ray absorptiometry. Secondary outcomes included visual analogue scale (VAS), quality of life (ECOS-16), and serum markers of bone metabolism. Adverse effects were documented for safety assessment. Follow-ups were performed at regular intervals during a one-year period.

Results: In ZGP group, lumbar BMD was increased by 4.1% immediately after the treatment (P<0.05) and by 4.7% at the end of the additional 6-month follow-up. Bone anabolic marker was also significantly improved after treatment (P<0.05). In YGP group, the VAS and ECOS-16 scores were also significantly reduced after treatment (P<0.05). Furthermore, bone resorption marker was significantly suppressed after treatment in YGP group (P<0.05), and bone anabolic marker was significantly increased (P<0.05), respectively. No severe adverse effects were observed.

Conclusion: ZGP and YGP are effective and safe therapeutic drugs for osteoporosis, which improve lumbar BMD, reduce pain intensity, alleviate bone resorption, and stimulate bone formation.

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BONE MINERAL DENSITY IN POSTMENOPAUSAL WOMEN WITH ESSENTIAL HYPERTENSION
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Background: Menopause is the special period in women’s life when many physiological changes develop simultaneously, for example, hypertension, decrease BMD, osteoarthritis, but, unknown how the quality of bone can changes.

Methods: In Department of Clinical Physiology and Pathology of Locomotor Apparatus, Institute of Gerontology AMS Ukraine 115 women aged 46-78 (average age is 66±6.4) were subdivided into three groups: group I comprised 42 patients diagnosed with osteoarthritis (gonarthritis) roentgen phase II according to classification of Kelgiren & Lawrence (1957), group II comprised 24 patients with hypertension second degree, group III (13 women) with gonorarthritis of stage II in combination with hypertension of