# Selección de Resúmenes de Menopausia

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María Soledad Vallejo. Clínica Quilín. Universidad de Chile

## Prevalence of symptoms and associated factors across menopause status in Taiwanese women

Pei-Shan Lee 1 2 , Chyi-Long Lee 3

Objective: To investigate the prevalence of symptoms and associated factors in Taiwanese women calling a menopause hotline. Methods: A cross-sectional, descriptive, epidemiological study was performed on 20,882 women aged 40 to 89 years registered in the menopause consultation database of the nationwide toll-free consultation hotline for menopause-related issues from January 2006 to December 2016. The data included demography, sources of menopausal health care, and menopause/midlife symptoms scale. Results: The mean menopausal age was 49.6 ± 4 years. The prevalence of the symptoms increased with the progress of the menopausal stages, and the differences between stages were significant. The top five symptoms reported on a menopause hot line were memory loss (66.9%), fatigue (66.5%), insomnia (59.6%), depressed mood (58.5%), and back pain (58.2%). Of the women, 23.5% did visit a medical facility for menopausal problems mainly the department of gynecology. More than half of the women (56.4%) opted for medical personnel as the preferred channel for obtaining information concerning menopause. Women who had a higher education level, were single, had no children, were not experiencing the empty-nest phenomenon, were employed, had no chronic disease, were premenopausal, had never received hormone therapy, and had not visited medical facilities scored the lowest in menopause/midlife symptoms. Conclusions: Compared with premenopausal and perimenopausal women, postmenopausal women experience the most severe symptoms. Therefore, establishing a menopause consultation hotline answered by medical personnel and implementing support for postmenopausal women to obtain strategies to alleviate symptoms are required and necessary.

## Bone Mineral Density in Older U.S. Filipino, Chinese, Japanese, and White Women

Joan C Lo, Malini Chandra, Catherine Lee, Jeanne A Darbinian, Mohan Ramaswamy, Bruce Ettinger.

Background/objectives: Bone mineral density (BMD) reference data exist for U.S. White, Black, and Hispanic (Mexican American) populations but not for U.S. Asians. Few studies have compared BMD findings among different U.S. Asian ethnicities. Design: Retrospective observational study. Setting: Large northern California healthcare system. Participants: Asian and White women aged 50 to 79 years with BMD testing from 1998 to 2017 excluding those with estrogen or osteoporosis treatment, recent fracture, or select disorders affecting skeletal health. Measurements: Femoral neck (FN)-BMD and height data. Methods: Differences in FN-BMD were examined by ethnicity and age, comparing Filipino, Chinese, and Japanese women and non-Hispanic White women. Differences in BMD were also examined after adjustment for height. Results: There were 37,224 Asian women (including 11,147 Filipino, 10,648 Chinese, and 2,519 Japanese) and 115,318 non-Hispanic White women. Mean height was similar among the Asian subgroups and about 6 to 8 cm lower than Whites. Mean FN-BMDs differed by less than 3% for Filipino, Chinese, and Japanese and all were lower than Whites, with smaller Asian-White differences among younger women (<3%; ages 50-59) and larger differences among older women (6-8%; ages 65-79). Adjusting FN-BMD for height reduced White-Asian differences by about 30% to 40%. Conclusion: Mean FN-BMD and height for Filipino, Chinese, and Japanese women were similar but consistently lower than White women, especially among older women. Although Asian-White BMD differences were substantially attenuated after height adjustment; some differences persisted for older women. Future studies should investigate potential age-cohort effects and the extent to which these BMD differences influence fracture risk and clinical care.

## Severe bone microarchitecture deterioration in a family with hereditary neuropathy: evidence of the key role of the mechanostat

R Abdala  1   2 , L Levi  3 , V Longobardi  3   4 , M B Zanchetta  3   4

In this report, we present three cases of individuals from the same family with a diagnosis of CMT with severe tibia bone microarchitecture deterioration assessed by HR-pQCT. Charcot-Marie-Tooth disease (CMT) or hereditary neuropathy involves both motor and sensory nerves. Falls are often the first manifestation in these patients and represent an important risk factor for fracture. The reduction of mechanical input on bone inhibits bone formation by osteoblasts and accelerates bone resorption by osteoclasts, leading to disuse osteoporosis. We report three cases of individuals from the same family with a diagnosis of CMT with severe tibia bone microarchitecture deterioration assessed by high-resolution peripheral quantitative computed tomography (HR-pQCT). This affectation was exclusive to the tibia; the radius remained undamaged, showing the consequences of the lack of mobility and mechanical stimulation. Physical activity and rehabilitation, in addition to adequate calcium and vitamin D supplementation, may play an essential role in the management of this disease.

# A direct comparison of women's perceptions and acceptability of micronised progesterone and medroxyprogesterone acetate in combination with transdermal oestradiol in the management of young postmenopausal women, under 45 years of age

M Mittal  1 , N Panay  2 , P R Supramaniam  3 , M Savvas  4 , L Cardozo  4 , H Hamoda  4

Objective: To assess the acceptability and perception of postmenopausal women, to two different hormone replacement therapy regimens, in relation to the control of their symptoms and development of adverse effects. Study design: Prospectively recruited postmenopausal women, <45 years, were randomised to one of two treatment arms for 12-months: cyclical micronised progesterone or medroxyprogesterone acetate in combination with transdermal oestradiol. A self-reported questionnaire with matrix rating scales was completed and repeated after 3, 6 and 12-months. Main outcome measures: Symptom control and development of adverse effects. Results: Seventy-one individuals were screened, with baseline data available for 67 subjects. A total of 190 questionnaires were returned. The most commonly reported symptoms were low energy levels, vasomotor symptoms and sexual dysfunction. The prevalence of adverse effects ranged between 57.89 and 87.50%, with a reduction seen in the transdermal oestradiol + micronised progesterone arm (73.91% at 3-months, decreasing to 57.89% at 12-months; p = 0.33), compared to the transdermal oestradiol + medroxyprogesterone acetate arm (76.92% at 3-months, increasing to 87.50% at 12-months; p = 0.69). The main reported adverse effects were bloating, weight change and psychological symptoms. A significant difference was documented between the groups after set intervals, with a greater proportion reporting breast tenderness after 3-months (p = 0.01), lower numbers reporting mood swings at 6-months (p = 0.01) and irritability at 12-months (p = 0.03) in the transdermal oestradiol + micronised progesterone arm compared to the transdermal oestradiol + medroxyprogesterone acetate arm. Conclusions: The acceptability of both regimens was high despite adverse effects, but tolerability of transdermal oestradiol combined with micronised progesterone appeared to be better with fewer women reporting psychological concerns.

# Evaluation of myostatin as a possible regulator and marker of skeletal muscle-cortical bone interaction in adults

Nagato Kuriyama  1 , Etsuko Ozaki  2 , Teruhide Koyama  2 , Daisuke Matsui  2 , Isao Watanabe  2 , et al.

Introduction: Bone mass was recently reported to be related to skeletal muscle mass in humans, and a decrease in cortical bone is a risk factor for osteoporosis. Because circulating myostatin is a factor that primarily controls muscle metabolism, this study examined the role of myostatin in bone mass-skeletal muscle mass interactions. Methods: The subjects were 375 middle-aged community residents with no history of osteoporosis or sarcopenia who participated in a health check-up. Cortical bone thickness and cancellous bone density were measured by ultrasonic bone densitometry in a health check-up survey. The subjects were divided into those with low cortical bone thickness (LCT) or low cancellous bone density (LBD) and those with normal values (NCT/NBD). Bone metabolism markers (TRACP-5b, etc.), skeletal muscle mass, serum myostatin levels, and lifestyle were then compared between the groups. Results: The percentage of diabetic participants, TRACP-5b, and myostatin levels were significantly higher, and the frequency of physical activity, skeletal muscle mass, grip strength, and leg strength were significantly lower in the LCT group than in the NCT group. The odds ratio (OR) of high myostatin levels in the LCT group compared with the NCT group was

significant (OR 2.17) even after adjusting for related factors. Between the low cancellous bone density (LBD) and normal cancellous bone density (NBD) groups, significant differences were observed in the same items as between the LCT and NCT groups, but no significant differences were observed in skeletal muscle mass and blood myostatin levels. The myostatin level was significantly negatively correlated with cortical bone thickness and skeletal muscle mass. Conclusions: A decrease in cortical bone thickness was associated with a decrease in skeletal muscle mass accompanied by an increase in the blood myostatin level. Blood myostatin may regulate the bone-skeletal muscle relationship and serve as a surrogate marker of bone metabolism, potentially linking muscle mass to bone structure.

## Comparisons of different vitamin D supplementation for prevention of osteoporotic fractures: a Bayesian network meta-analysis and meta-regression of randomised controlled trials

Shuo Li  1 , Chunyang Xi  2 , Liangliang Li  1 , Zhiping Long  1 , Nannan Zhang  1 , Huihui Yin  1 , Kun Xie  1 , Zhen Wu  1 , Jingshen Tian  1 , Fan Wang  1 , Maoqing Wang  3

Previous randomised controlled trials have shown the controversial effectiveness of oral vitamin D supplementation in preventing osteoporotic fractures. PubMed, EMBASE and Cochrane Library electronic databases were searched. Pairwise meta-analysis, Bayesian network meta-analysis and meta-regression were applied. A total of 33 studies containing 83,083 participants were included. Oral vitamin D supplementation showed no statistically significant on reducing the risk of total fractures (RR = 0.96, 95% CI = 0.87-1.05 p = 0.389). Vitamin D3 (700-800IU/d) plus calcium showed statistical significance in reducing the incidence of total, hip and non-vertebral fractures in the pairwise meta-analysis. Significant reductions were specifically identified in female in total and hip fractures. However, we did not observe any above significant results using Bayesian network meta-analyses. Strikingly, a meta-regression analysis identified an inverse association between the efficacy of fracture prevention and increased body mass index. Thus, we recommended that the vitamin D dose should be adjusted according to BMI based on further confirmation.