



## Selección de Resúmenes de Menopausia

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**Eur J Endocrinol. 2016 Nov 11. pii: EJE-16-0583. [Epub ahead of print]**

### Expression of microRNAs that regulate bone turnover in the serum of postmenopausal women with low bone mass and vertebral fractures.

Yavropoulou MP, Anastasilakis A, Makras P, Tsalikakis D, Grammatiki M, Yovos JG.

Circulating microRNAs (miRs) are currently being investigated as novel biomarkers for osteoporosis and osteoporotic fractures. The aim of this study was to investigate serum levels of specific microRNAs, known regulators of bone metabolism, in postmenopausal women with low bone mass and with or without vertebral fractures (VFs). **METHODS:** For the analysis, 14 miRs were isolated from the serum of 35 postmenopausal women with low bone mass and with at least one moderate VF and 35 postmenopausal women with low bone mass without fractures. Thirty postmenopausal women with normal BMD values and no history of fractures served as controls. Main outcome parameters were changes in the expression of selected miRs in the serum of patient population and compared with controls. **RESULTS:** From the 14 miRs that were selected we identified 5 miRs, namely miR-21-5p, miR-23a, miR-29a-3p, miR-124-3p, and miR-2861 that were significantly deregulated in the serum of patients with low bone mass compared with controls. Serum miR-124 and miR-2861 were significantly higher, while miR-21, miR-23 and miR-29 were lower in patients compared with controls. In a sub-group analysis of the patient population the expression of miR-21-5p, was significantly lower among osteoporotic/osteopenic women with VFs, showing 66% sensitivity and 77% specificity in distinguishing women with a vertebral fracture. **CONCLUSION:** This study identifies a differential expression pattern of miR-21-5p in the serum of women with low BMD and VFs.

**Stroke. 2016 Nov 10. pii: STROKEAHA.116.014674. [Epub ahead of print]**

### Menopausal Hot Flashes and Carotid Intima Media Thickness Among Midlife Women.

Thurston RC, Chang Y, Barinas-Mitchell E, Jennings JR, Landsittel DP, Santoro N, von Känel R, Matthews KA.

**BACKGROUND AND PURPOSE:** There has been a longstanding interest in the role of menopause and its correlates in the development of cardiovascular disease (CVD) in women. Menopausal hot flashes are experienced by most midlife women; emerging data link hot flashes to CVD risk indicators. We tested whether hot flashes, measured via state-of-the-art physiologic methods, were associated with greater subclinical atherosclerosis as assessed by carotid ultrasound. We considered the role of CVD risk factors and estradiol concentrations in these associations. **METHODS:** A total of 295 nonsmoking women free of clinical CVD underwent ambulatory physiologic hot flash assessments; a blood draw; and carotid ultrasound measurement of intima media thickness and plaque. Associations between hot flashes and subclinical atherosclerosis were tested in regression models controlling for CVD risk factors and estradiol. **RESULTS:** More frequent physiologic hot flashes were associated with higher carotid intima media thickness (for each additional hot flash:  $\beta$  [SE]=0.004 [0.001];  $P=0.0001$ ; reported hot flash:  $\beta$  [SE]=0.008 [0.002];  $P=0.002$ , multivariable) and plaque (eg, for each additional hot flash, odds ratio [95% confidence interval] plaque index  $\geq 2=1.07$  [1.003-1.14];  $P=0.04$ , relative to no plaque, multivariable) among women reporting daily hot flashes; associations were not accounted for by CVD risk factors or by estradiol. Among women reporting hot flashes, hot flashes accounted for more variance in intima media thickness than most CVD risk factors. **CONCLUSIONS:** Among women reporting daily hot flashes, frequent hot flashes may provide information about a woman's vascular status beyond standard CVD risk factors and estradiol. Frequent hot flashes may mark a vulnerable vascular phenotype among midlife women.

**Endocrinol Metab (Seoul). 2016 Nov 4. [Epub ahead of print]**

### Association between Obesity and Bone Mineral Density by Gender and Menopausal Status.

Salamat MR, Salamat AH, Janghorbani M.

**BACKGROUND:** We investigated whether there were gender differences in the effect of obesity on bone mineral density (BMD) based on menopausal status. **METHODS:** We assessed 5,892 consecutive patients 20 to 91 years old who were referred for dual-energy X-ray absorptiometry (DXA) scans. All subjects underwent a standard BMD scan of

the hip (total hip and femoral neck) and lumbar spine (L1 to L4) using a DXA scan and body size assessment. Body mass index was used to categorize the subjects as normal weight, overweight, and obese. RESULTS: BMD was higher in obese and overweight versus normal weight men, premenopausal women, and postmenopausal women. Compared to men  $\geq 50$  years and postmenopausal women with normal weight, the age-adjusted odds ratio of osteopenia was 0.19 (95% confidence interval [CI], 0.07 to 0.56) and 0.38 (95% CI, 0.29 to 0.51) for obese men  $\geq 50$  years and postmenopausal women. Corresponding summaries for osteoporosis were 0.26 (95% CI, 0.11 to 0.64) and 0.15 (95% CI, 0.11 to 0.20), respectively. Compared to men  $< 50$  years and premenopausal women with normal weight, the age-adjusted odds ratio of low bone mass was 0.22 (95% CI, 0.11 to 0.45) and 0.16 (95% CI, 0.10 to 0.26) for obese men  $< 50$  years and premenopausal women, respectively. CONCLUSION: Obesity is associated with BMD of the hip and lumbar spine and overweight and obese individuals have similar degrees of osteoporosis. This result was not significantly different based on gender and menopausal status, which could be an important issue for further investigation.

**Osteoporos Int. 2016 Nov 10. [Epub ahead of print]**

### **Secular trends in incidence and recurrence rates of hip fracture: a nationwide population-based study.**

Chen FP, Shyu YC, Fu TS, Sun CC, Chao AS, Tsai TL, Huang TS.

INTRODUCTION: The aim of the study is to assess the incidence rates (IRs) of hip fractures, including changes in trends and medical costs, and second hip fractures in the Taiwanese population. METHODS: The number of hip fractures and the associated medical costs were obtained from the annual report of the Ministry of Health and Welfare, Taiwan, for individuals  $\geq 50$  years of age. The data of population at risk were retrieved from annual population reports from the Ministry of the Interior, Taiwan. The incidence of second hip fractures was evaluated from the National Health Insurance Research Database of Taiwan for insured individuals aged  $\geq 50$  years from 2001 to 2011 with follow-up until 2013 using a competing risk model. RESULTS: The IR for the entire population increased from 332.7 to 336.5 per 100,000 person-years during 2001-2005 and decreased thereafter. This secular change was driven by a decrease in hip fractures for both men and women. The 10-year cumulative incidence rate of second hip fracture was 11.2% (95% CI 11.0-11.5%) in women and 7.9% (95% CI 7.6-8.1%) in men. Adjusted by consumer price index (CPI), the costs of hospitalization due to hip fracture increased from NTD 1.17 billion in 2001 to NTD 1.43 billion in 2012. However, the CPI-adjusted costs of each admission decreased from NTD 74944 in 2001 to NTD 65791 in 2012. CONCLUSIONS: Since 2006, the IR of hip fractures has been declining in Taiwan. The 10-year cumulative IR of mortality is substantial for individuals who with first hip fracture.

**Oncotarget. 2016 Nov 5. doi: 10.18632/oncotarget.13140. [Epub ahead of print]**

### **Dietary fibre intake and risk of breast cancer: A systematic review and meta-analysis of epidemiological studies.**

Chen S, Chen Y, Ma S, Zheng R, Zhao P, Zhang L, Liu Y, Yu Q, Deng Q, Zhang K.

Current evidence from randomised controlled trials on the effects of dietary fibre intake on breast cancer risk is inconsistent. We conducted a meta-analysis to determine the effectiveness of dietary fibre intake in reducing breast cancer risk. We searched for prospective and case-control studies on dietary fibre intake and breast cancer risk in the English language through March 2016. Twenty-four epidemiologic studies obtained through the PubMed, Embase, Web of Science, and Cochrane Library databases were systematically reviewed. A random-effects model was used to compute the pooled risk estimates by extracting the risk estimate of the highest and lowest reported categories of intake from each study. The meta-analyses showed a 12% decrease in breast cancer risk with dietary fibre intake. The association between dietary fibre intake and breast cancer risk was significant when stratified according to Jadad scores, study types, and menopause status. Dose-response analysis showed that every 10 g/d increment in dietary fibre intake was associated with a 4% reduction in breast cancer risk, and little evidence of publication bias was found. Thus, dietary fibre consumption is significantly associated with a reduced risk of breast cancer, particularly in postmenopausal women.

**Maturitas. 2016 Dec;94:125-130. doi: 10.1016/j.maturitas.2016.10.005. Epub 2016 Oct 5.**

### **Associations between the number of natural teeth in postmenopausal women and hormone replacement therapy.**

Han K, Ko Y, Park YG, Park JB.

**OBJECTIVES:** Increasing research suggests that periodontal status is associated with hormone replacement therapy in postmenopausal women. This study was performed to assess the relationship between the number of natural teeth and ever use of hormone replacement therapy in postmenopausal women using nationally representative Korean data. **METHODS:** Data from the Korea National Health and Nutrition Examination Survey between 2010 and 2012 were used, and the analysis in this study was confined to a total of 4869 respondents over 19 years old who had gone through menopause and who had no missing data for the reproductive factors and outcome variables in that study. The total number of natural teeth was then calculated after excluding third molars. The time of day when tooth brushing was done was recorded as representative oral health behavior. Multiple logistic regression analyses were used to assess association between the number of natural teeth and the use of hormone replacement therapy. **RESULTS:** Among participants who had ever used hormone replacement therapy, the proportions (percentage and standard error) with no teeth, 1-9 teeth, 10-19 teeth, 20-27 teeth, and 28 teeth were  $5.0\pm 2.4\%$ ,  $6.7\pm 1.4\%$ ,  $12.5\pm 1.7\%$ ,  $18.9\pm 1.0\%$ , and  $20.7\pm 1.6\%$ , respectively ( $P<0.05$ ). The adjusted odds ratio and 95% confidence interval for having fewer than 20 teeth  $<20$  was 0.624 [0.464-0.840] for the individuals using hormone replacement therapy, after adjustments. **CONCLUSIONS:** The analysis revealed that the use of hormone replacement therapy by postmenopausal women showed positive effects for retention of natural teeth. Lack of hormone replacement therapy may be considered to be an independent risk indicator for tooth loss in Korean postmenopausal women.

**Maturitas. 2016 Dec;94:106-109. doi: 10.1016/j.maturitas.2016.09.015. Epub 2016 Sep 28.**

### **Decreased mortality risk due to first acute coronary syndrome in women with postmenopausal hormone therapy use.**

Tuomikoski P, Salomaa V, Havulinna A, Airaksinen J, Ketonen M, Koukkunen H, Ukkola O, Kesäniemi YA, et al.

**Objectives:** The role of postmenopausal hormone therapy (HT) in the incidence of acute coronary syndrome (ACS) has been studied extensively, but less is known of the impact of HT on the mortality risk due to an ACS. **Study design and main outcome measures:** We extracted from a population-based ACS register, FINAMI, 7258 postmenopausal women with the first ACS. These data were combined with HT use data from the National Drug Reimbursement Register; 625 patients (9%) had used various HT regimens. The death risks due to ACS before admission to hospital, 2-28, or 29-365 days after the incident ACS were compared between HT users and non-users with logistic regression analyses. **RESULTS:** In all follow-up time points, the ACS death risks in HT ever-users were smaller compared to non-users. Of women with HT ever use, 42% died within one year as compared with 52% of non-users (OR 0.62,  $p<0.001$ ). Most deaths (84%) occurred within 28 days after the ACS, and in this group 36% of women with ever use of HT (OR 0.73,  $p=0.002$ ) and 30% of women with  $\geq 5$  year HT use (OR 0.54,  $p<0.001$ ) died as compared to 43% of the non-users. Age  $\leq 60$  or  $>60$  years at the HT initiation was accompanied with similar reductions in ACS mortality risk. **CONCLUSIONS:** Postmenopausal HT use is accompanied with reduced mortality risk after primary ACS.

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### **No Increase in Fractures after Stopping Hormone Therapy: Results from the Women's Health Initiative.**

Watts NB, Cauley JA, Jackson RD, LaCroix AZ, Lewis CE, et al. Women's Health Initiative Investigators.

**CONTEXT:** The Women's Health Initiative (WHI) hormone therapy (HT) trials showed protection against hip and total fractures but a later observational report suggested loss of benefit and a rebound increased risk after stopping. **OBJECTIVE:** To examine fractures after discontinuation of HT **Design and Setting:** Two placebo-controlled randomized trials **Patients:** 15,187 WHI participants who continued active HT or placebo through the intervention period and did not take HT in the post-intervention period **Interventions:** Conjugated equine estrogen + medroxyprogesterone acetate (CEE+MPA) in naturally menopausal women and conjugated equine estrogen (CEE) alone in women with prior hysterectomy **Main Outcome Measures:** Total and hip fractures through 5 years after discontinuation **Results:** Hip fractures were infrequent ( $\sim 2.5$  per 1,000 person years), similar between both trials and former HT and placebo groups. There was no difference in total fractures in the CEE+MPA trial for former HT vs former placebo (28.9 per 1,000 person years and 29.9 per 1,000 person years respectively) (hazard ratio [HR] 0.97; 95% CI 0.87, 1.09,  $p=0.63$ ); however, in the CEE alone trial, total fractures were higher in former placebo users (36.9 per 1,000 person years) compared with former active group (31.1 per 1,000 person years), suggestive of a residual benefit of CEE against total fractures (HR 0.85, 95% CI 0.73, 0.98,  $p=0.03$ ). **CONCLUSIONS:** We found no evidence for increased fracture risk, either sustained or transient, for former HT users compared with prior placebo women after stopping HT. There was residual benefit for total fractures in former HT users from the CEE-alone study.