INPLASY PROTOCOL

Corresponding author:
Qi shikun

1067785707@qq.com

Author Affiliation:
The Fourth School of Clinical Medicine of Guangzhou University of Chinese Medicine.

Support: None.

Review Stage at time of this submission: Preliminary searches.

Conflicts of interest: None declared.

A meta-analysis of the incidence and influencing factors of osteoporosis in perimenopausal women in China

Qi, SK[1]; Xu, MM[2]; Zhang, XF[3]; Chen, YY[4]; Fan, XG[5]; Zhu, MX[6]; Wang, N[7].

Review question / Objective: P:Perimenopausal women E/I: Diagnosis of osteoporosis C:No O:Incidence and Influencing factors of osteoporosis S:Cross-sectional Study.
Condition being studied: Osteoporosis is a systemic bone disease characterized by reduced bone mass and damage to the microstructure of bone tissue, resulting in increased bone fragility and susceptibility to fracture. Perimenopause is the period before and after menopause in women, including the period from the onset of endocrine, biological and clinical features related to menopause to the year after the last menstrual period. During the perimenopausal period, approximately 10% of bone mass is lost, and the incidence of osteoporosis in perimenopausal women has been increasing year by year in recent years. Osteoporosis not only increases the risk of fracture, leading to decreased self-care, chronic pain, and even death, but also imposes a huge burden on society in terms of human, material, and financial resources. This study aims to understand the current situation and factors influencing osteoporosis in perimenopausal women in China through meta-analysis, and to provide an evidence-based basis for the prevention and treatment of perimenopausal women with osteoporosis.

INTRODUCTION

Review question / Objective: P:Perimenopausal women E/I: Diagnosis of osteoporosis C:No O:Incidence and Influencing factors of osteoporosis S:Cross-sectional Study.

Condition being studied: Osteoporosis is a systemic bone disease characterized by reduced bone mass and damage to the microstructure of bone tissue, resulting in increased bone fragility and susceptibility to fracture. Perimenopause is the period before and after menopause in women, including the period from the onset of endocrine, biological and clinical features related to menopause to the year after the last menstrual period. During the perimenopausal period, approximately 10% of bone mass is lost, and the incidence of osteoporosis in perimenopausal women has been increasing year by year in recent years. Osteoporosis not only increases the risk of fracture, leading to decreased self-care, chronic pain, and even death, but also imposes a huge burden on society in terms of human, material, and financial resources. This study aims to understand the current situation and factors influencing osteoporosis in perimenopausal women in China through meta-analysis, and to provide an evidence-based basis for the prevention and treatment of perimenopausal women with osteoporosis.

METHODS

Search strategy: The search strategy was to use a combination of medical medical subheading (MeSH) terms and free words. related to ''osteoporosis'', ''perimenopause'', ''incidence'',"epidemiology" and ''risk factors'', and adapted to the characteristics of each database. Using the PubMed database as an example, the search formula is as follows. ((("Osteoporosis"[Mesh]) OR (((((((((((((((((((((Osteoporoses[Title/Abstract]) OR(Osteoporosis,Post-Traumatic[Title/Abstract]))OR(Osteoporosis,Post Traumatic[Title/Abstract])) OR (Post-Traumatic Osteoporoses[Title/Abstract])) OR (Post-Traumatic Osteoporosis[Title/Abstract])) OR (Osteoporosis, Senile[Title/Abstract])) OR (Osteoporoses, Senile[Title/Abstract])) OR (Senile Osteoporoses[Title/Abstract])) OR (Osteoporosis, Involutional[Title/Abstract])) OR (Senile Osteoporosis[Title/Abstract])) OR (Osteoporosis, Age-Related[Title/Abstract])) OR (Osteoporosis, Age Related[Title/Abstract])) OR (Bone Loss, Age-Related[Title/Abstract])) OR (Age-Related Bone Loss[Title/Abstract])) OR (Age-Related Bone Losses[Title/Abstract])) OR (Bone Loss, Age Related[Title/Abstract])) OR (Bone Losses, Age-Related[Title/Abstract])) OR (Age-Related Osteoporosis[Title/Abstract])) OR (Age Related Osteoporosis[Title/Abstract])) OR (Age-Related Osteoporoses[Title/Abstract])) OR (Osteoporoses, Age-Related[Title/Abstract])))) AND ("Perimenopause"[Mesh])) AND (((((Factor, Risk[Title/Abstract]) OR (Risk Factor[Title/Abstract])) OR ("Risk Factors"[Mesh])) OR ("Incidence"[Mesh])) OR ("Epidemiology"[Mesh])).

Participant or population: Perimenopausal women.

Intervention: No.

Comparator: No.

Study designs to be included: Cross-sectional Study.

Eligibility criteria: Literature inclusion criteria.1. study population: Chinese perimenopausal women with clear diagnostic criteria for osteoporosis2. study type: cross-sectional study with prevalence and/or factors influencing osteoporosis in the literature3. outcome indicators: provided in the literature or translatable into an OR, 95% confidence interval4. literature in Chinese or EnglishLiterature exclusion criteria.1. duplicate publications from the same study2. Incomplete data or unavailable full-text literature3. animal studies, reviews, conference papers, dissertations, or case reports4. No clear description of the type of study

Information sources: Computer searches of PubMed, EMBASE, The Cochrane Library, CBM, Wangfang Data, VIP, and CNKI databases.

Main outcome(s): Prevalence of osteoporosis in perimenopausal women

Factors influencing osteoporosis in perimenopausal women.

Data management: Noteexpress.

Quality assessment / Risk of bias analysis: Literature Screening and Quality Evaluation The literature was screened and quality evaluated by each of the 2 investigators, and any disagreement in the screening and evaluation process was decided through discussion or arbitration by a third investigator. The literature was screened according to the inclusion and exclusion criteria, and the included literature was evaluated using the 11 cross-sectional study evaluation criteria (AHRQ) recommended by the Agency for Healthcare Quality and Research for observational study quality. 0 to 3 was considered low quality, 4 to 7 was considered moderate quality, and 8 to 11 was considered high quality.

Strategy of data synthesis: Heterogeneity analysis was performed by calculating I2 and conducting Q-test for the literature that met the inclusion criteria of this study. If I2 ≥ 50% and/or P < 0.1 for the Q test, it suggested that the included literature was more heterogeneous and a random-effects model was used; conversely, I2 < 50% and/or P ≥ 0.1 for the Q test suggested that the included literature was less heterogeneous and a fixed-effects model was used.

Subgroup analysis: Subgroup analysis according to age, geographical area of living, economic situation, and educational background of perimenopausal women.

Sensitivity analysis: The statistics will be re-combined by excluding each study in turn. The sensitivity analysis was performed by excluding each study in turn.

Country(ies) involved: China.

Keywords: Osteoporosis; Perimenopause; incidence rate; Influencing Factors.

Contributions of each author:
Author 1 - Qi shikun.
Author 2 - Xu mingming.
Author 3 - Zhang xiufang.
Author 4 - Chen yuanyuan.
Author 5 - Fan xiangge.
Author 6 - Zhu mengxia.
Author 7 - Wang nan.