INPLASY

Association between age at menarche and primary osteoporosis : a meta-analysis

Corresponding author:
Yingyan Yao

270279961@qq.com

Author Affiliation:
JiNan University.

Pei, Q[1]; Yao, YY[2].

ADMINISTRATIVE INFORMATION

Support - 2525.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202360075

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 June 2023 and was last updated on 26 June 2023.

INTRODUCTION

*R*eview question / Objective The purpose of this study was to analyze the correlation between age of menarche and primary osteoporosisCorrelation between age at menarche and primary osteoporosis , The study type was meta-analysis.

Condition being studied Two researchers independently screened and reviewed the literature, extracted data, and evaluated the quality of the included studies.

METHODS

Participant or population Female patients with primary osteoporosis.

Intervention No intervention.

Comparator No comparator.

Study designs to be included Cross-sectional studies, case-control studies, cohort studies.

Eligibility criteria Bone mineral density test:Dual energy X-ray absorption measurement.

Information sources CNKI, VIP Database, Wanfang Database, PubMed, Web of Science, Embase, Cochrane Library.

Main outcome(s) One of the following results: 1、OR value and 95%CL of the association between age of menarche and primary osteoporosis. 2、Mean ± standard deviation of age at menarche in patients with primary osteoporosis.

Quality assessment / Risk of bias analysis New Castle-Ottawa quality assessment scale,NOS. The Agency for Healthcare Research and Quality AHRQ.

Strategy of data synthesis Review Manager 5.3 software was used for statistical analysis. I2

Determine the size of heterogeneity. If there was no statistical heterogeneity among the results, the fixed effect model was used for meta-analysis. If there was statistical heterogeneity among the findings, a random effects model was used for meta-analysis. If there is heterogeneity among studies, a single factor sensitivity analysis is performed, and the overall effect is looked at after excluding one study at a time to test whether the study has a significant impact on the overall result.

Subgroup analysis 1、Mean ± standard deviation of age of menarche with and without POP. 2、The number of cases with and without POP at menarche age ≤16 years and > 16 years.

Sensitivity analysis Sensitivity analysis was performed using revman software, and the changes in effect size after one study were excluded to reflect the sensitivity of the article.

Country(ies) involved China.

Keywords Primary osteoporosis; Age of menarche; Meta-analysis.

Contributions of each author
Author 1 - Qin Pei.
Author 2 - Yingyan Yao.