Reviewer's report

Title: Bone Mineral Density in healthy Iranian population: A Cross sectional study

Version: 5 Date: 10 March 2005

Reviewer: Noriko Yoshimura

Reviewer's report:

-Major Compulsory Revisions

This study measured bone mineral density in the Iranian population by dual energy X-ray absorptiometry. The authors investigated age and gender differences in bone mineral density in order to establish reference values for Iranian people. Unfortunately, the changes made to this manuscript are insufficient at present and the following changes need to be affected before it can be published

Note that you have not adequately addressed the issues I raised previously, specifically:

Methods

1) How many blocks are there in Tehran in total?

2) How were the 50 blocks in this study chosen?
   In the letter to the reviewers, you stated the method in detail. You should insert the explanation from that letter into the manuscript.

3) How did the author(s) determine that the subjects in the present study were representative of the general population in Iran? Were there differences in basic characteristics between participants and people who refused to take part in the study?

   Concerning representativeness, you wrote in your Discussion, “As Tehran is the biggest city in Iran and 1/6 of all the population of Iran live in Tehran, therefore the data of this study generalized to Iran.” This is a careless assumption and is not scientifically sound. I recommend that you review representativeness and methodology and how they are applied in epidemiology.

Results

1) This cross-sectional study did not investigate changes in the bone mineral density of the subjects. It is therefore not appropriate to say that bone mineral density “decreased”, or that a “decrease” in bone mineral density accelerated. Also, based on the results of the present study, it is not meaningful to discuss percent decreases in the bone mineral density.

2) The format and spelling of his manuscript need to be reviewed for before submission as there were too many spelling errors, for example:

   P3 l 8 form (from?)
   P4 l19 fro (from?)
   P5 l2 bye (by?)
   P5 l3 the (?)
   P7 l5 dose (does?)
   P7 l10 women% (?)
There are also incidences of carelessness in the writing e.g.

P4 2nd paragraph is repetition of the previous paragraph
P9 l3 Why did you insert “Conclusions” here?

The emphasis in the abstract and introduction focused on reference data in Iranian people. However, in the results section you suddenly note the relationship between BMI and BMD. If you wish to explore the relationship between physique and BMD then you need to consider restructuring the whole manuscript. You should look over the revised manuscript before submitting.

3) Figures and tables

Generally, these were inappropriate. If you want to compare the values of BMD at the level of age-decade, then using scattered plots is inappropriate (Figs 1 and 2). Also, Tables 1 and 3 were inadequate for purposes of comparing physical characteristics and the prevalence of osteoporosis. The style of Table 2 needs to be improved.

Use of words in the tables was very irregular. For example, in the Tables 1 and 3, you use “women” and “man” (“men” would be better). However, in the Table 2, you use “males” and “females”. This irregularity should be corrected. The numbers for the mean BMD of the femur for the 20-29 year-old and 30-39 year-old female cohorts that I pointed out in my previous comments still appears unusual.

- Minor Essential Revisions

p4 l17 What is the meaning of a “prospective cross-sectional study”?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

None.