Reviewer's report

Title: Low-dose combined oral contraceptives use is associated to lower bone mineral content variation in adolescents over a one-year period

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Reviewer: Nihal Hatipoglu

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In this study, authors have investigated that low dose combine with oral contraceptives effects bone mineral content variation in adolescents. They separated two groups as 41 cases were COC users and 21 cases were non-users. These groups were compared in terms of BMD and BMC after one year. In conclusion, authors claimed that low dose COC was associated with lower bone mass acquisition in adolescents during one year.

What are the new contributions of this study considering the studies in the literature that evaluate more cases for longer durations on this topic?

In this study, the number of cases is inadequate and also the duration is not long enough.

Why the authors didn’t choose femoral neck? This area is more valuable than the whole body with or without the cephalic region.

In the exclusion criteria, you should also ask oligo/amenorrhea situation.

In your groups, there are some cases who have advanced bone age. Is there any explanation for this?

In the COC user group, some patients have high BMI value (maximum BMI percentile is 97.38). As far as we know, BMI affects BMD and BMC, so, statistical outcomes may be affected.

In the statistical analysis, you should make adjustments for age and BMI or use Z-score or SD values for BMD and BMC.

Are there any patients with osteoporosis in COC group, at the end of the study?

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.