Letter to the Editor

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Reply on "Relationship between maternal periodontal disease and Apgar score of newborns"

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To the editor:

Questions have been raised, in the form of a letter to the editor, in relation to our article published in your esteemed journal, entitled "Relationship between maternal periodontal disease and Apgar score of newborns," [1] by some respected colleagues. We greatly appreciate the carefully considered scientific views of the researchers who have sent the letter; however, we draw your attention to the following:

1) The study compared two case and control groups without evaluating a cause-and-effect relationship. As explained in the "MATERIALS AND METHODS" section, the study design was cross-sectional/descriptive with two subgroups. In a cross-sectional study, the cause-and-effect, that is, the dependent and independent variables, are measured simultaneously, and in our study, by selecting two groups (pregnant women with a history of periodontal disease and pregnant women without a history of periodontal disease), dependent, confounding, and background variables were measured in these groups. Then relevant statistical tests were applied for comparisons. In such cases, it is advisable to select an equal number of subjects for each group. Our study was not a retrospective study; rather, it was a prospective study to collect data in a prospective manner. If the study design had been case-control, one the opinions given by our esteemed colleagues in their letter would have been correct, but our study was a descriptive study in two groups in the form of a case-control study.

2) In relation to the second opinion, in descriptive or cross-sectional studies, the power of the study or sample size is not as important as those in analytical studies because the aim of such studies is not to find a particular cause-and-effect relationship. If the authors had planned to use special and advanced models such as regression analysis to estimate risk factors simultaneously, use of formulae to determine sample size would have become necessary. However, since in the initial design of the study, attempts were made to define and design the whole study based on particular principles, the sample size was determined based on the study design (descriptive/comparative) using tests to compare the means with a power of 80% and the acceptable differences of Apgar scores as the main variables (a difference of 1 point in Apgar scores) and the total needed sample size was determined to be 200 subjects (100 subjects in each group).

3) In relation to the inclusion of subjects with a history of pregnancy, it is obvious that subjects with a history of premature low birth weight and stillbirth should not have been included in the study, and in fact, only subjects with a history of normal term births were included so that it was possible to evaluate the relationship with periodontal disease. However, it would have been advisable to clearly explain this point in the study report.

Finally, we greatly thank our colleagues and hope that further scientific and academic dialogs will take place between researchers in different fields.

REFERENCE

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