Study of influencing factors on umbilical blood lead in Guangzhou

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View from specialist: It is creative, and of certain scientific and educational value.
[ABSTRACT] Objective: To investigate the status of umbilical blood lead of newborns and its influencing factors. Methods: Collected 287 umbilical blood samples in Guangzhou. Tested blood lead with Z/3030 graphite atomic absorption spectrophotometer (PE Company) under strict quality control, and investigated 287 parturients about family and social environment with questionnaire. Made multi-factor statistic analysis of obvious impacting factors. Results: The level of lead in 287 umbilical blood sample had normal distribution, with range as 20-175 μg/L, median as 77.38 μg/L, and standard deviation as 28.08 μg/L. 18.82% exceeded the secure limit (100 μg/L). It was showed passive smoking, eating preserved egg during pregnancy, habitation with many persons and new decoration were dangerous factors of lead exposure for fetus. However, multiply Logistic regression indicated there was no statistic significance( \( P > 0.05 \)). Conclusion: Lead pollution is disadvantageous influence on fetus development, and the environment in Guangzhou still need further improvement.

[KEY WORDS] Newborn; Blood lead; Influencing factor