ABSTRACT

DIFFERENCE OF CALCIUM LEVEL BETWEEN JAVA, MADURA, AND CHINESE PREECLAMPSIA WOMAN

Nuzulul Azizah Ramdan Wulandari¹, Ernawati², Muhammad Aldika Akbar³

¹Midwifery Study Program Faculty of Medicine Airlangga University

^{2,3} Departement of Obstetrics and Gynaecology, Dr. Soetomo General Hospital/
Faculty of Medicine Airlangga University

Background: Ethnic difference influences genetic and disease characteristic of someone. Besides genetic factor, ethnic difference also influences life style and nutrition which influence demography characteristic and disease which is suffered. This case includes preeclampsia. The purpose of this study is to analyse difference of calcium level and characteristic between Javanese, Maduran, and Chinese preeclampsia woman so that influence preeclampsia incident.

Methods: This study was designed crosssectional with preeclampsia patient before getting MgSO₄ in Dr. Soetomo General Hospital, Dr. M. Soewandhie General Hospital, and UNAIR Hospital as sample. Sample was taken by measuring total calcium level in blood serum with method used on the Dimension clinical chemistry system is an in vitro in Laboratory of Clinical Pathology in Dr. Soetomo General Hospital. Sample was taken using consecutive sampling. Calculation of sample size formula got 53 preeclampsia women as sample.

Result: There were 53 preeclampsia patients with ethnic difference in Javanese in average age $31,21\pm5,76$ with BMI $31,19\pm5,99$ late onset, Maduran in age $34,20\pm5,58$ with BMI $27,66\pm4,74$ late onset, Chinese in age $28,20\pm2,16$ with BMI $26,24\pm2,13$ early onset. Average total calcium level showed in Maduran was 7.7 mg/dL, Javanese was 8.3 mg/dL, Chinese was 9,0 mg/dL. Kruskal Wallis test showed significant result with p=0,000. Severity in preeclampsia women showed that Maduran ethnic had the highest severity than Javanese and Chinese.

Conclusion: There are difference of calcium level between Javanese, Maduran, and Chinese preeclampsia woman and the highest severity is in Maduran ethnic with low calcium level.

Keywords: Preeclampsia, calcium level, ethnic