

ABSTRACT

Prolonged labor as know as failure to progress or delayed labor progress. Prolonged labor is one of the direct causes of maternal mortality . There was about 1% maternal mortality in Indonesia that caused by prolonged labor in 2010 and increased to 1.8% in 2012. One of the risk factors to increase the prolonged labor is maternal obesity that diagnosed using maternal BMI. The purpose of this study was to determine the relationship between maternal pre-pregnancy BMI, pre-labor BMI, gestational weight gain and prolonged labor in RSUD dr. M. Soewandhie Surabaya.

This is case control study. Case group was women with prolonged labor and the control group was women who had normal deliveries. The samples for each group were 83 respondent (1:1). The technique sampling used total sampling for case group and systematic random sampling for control group. The data were analyzed by using SPSS version 23 with chi-square test.

The result of study ($\alpha = 0,05$) was obtained that there were significant relationship between pre-pregnancy BMI ($p = 0,038$), pre-labor BMI ($p = 0,040$), and weight gain during pregnancy ($p = 0,043$) with prolonged labor. The strength of association based on of the contingency coefficient that pre pregnancy BMI 0.216 ($p = 0.40$), pra labor BMI 0.208 ($p = 0.040$), and weight gain during pregnancy 0.191 (0.043) were weak association.

The conclusion of this study is there is significant correlation between maternal pre-pregnancy BMI, pre-labor BMI, gestational weight gain and prolonged labor in RSUD dr. M. Soewandhie Surabaya.

Keywords: prolonged labor, pre-pregnancy maternal BMI, pre-labor maternal BMI, gestational weight gain,