Kadar glukosa dan asam amino pada ibu dan bayi dengan berat lahir rendah dan normal

Murtiwi, author

Abstrak

Ruang Lingkup dan Cara penelitian : Selama kehamilan, untuk memenuhi kebutuhan pertumbuhan janin yang optimal diperlukan adaptasi ibu. Salah satu di antaranya terjadi perubahan kadar hormon pertumbuhan plasenta (hPGH), diduga akan menyebabkan kadar glukosa dan asam amino ibu meningkat. Penelitian ini dilakukan untuk melihat perbedaan kadar glukosa dan asam amino ibu dan bayi dengan berat lahir rendah (BBLR) dan berat lahir normal (BBLN). Penelitian ini berupa studi eksploratif pada dua kelompok ibu hamil aterm (38 - 40 minggu). Kelompok I, 15 ibu hamil yang mempunyai taksiran berat janin antara 2000 - 2500 g. Kelompok II, ibu hamil yang mempunyai taksiran berat janin antara 2501 - 3500 g. Pengambilan percontoh darah dari vena kubiti ibu dan darah talipusat untuk pemeriksaan kadar glukosa dan asam amino total. Selain itu juga diukur berat plasenta. Dilakukan perbandingan nilai rata-rata antara dua kelompok dengan batas kemaknaan = 5%.
Hasil dan Kesimpulan : Kadar glukosa serum ibu kelompok BBLR = 112,4 mg/dl. Kelompok BBLN = 110,93 mg/dl. Kadar asam amino serum ibu kelompok BBLR = 5,62 mg/dl. Kelompok BBLN = 4,45 mg/dl. Kadar glukosa serum talipusat (bayi) kelompok BBLR = 97,13 mg/dl, kelompok BBLN = 107,33 mg/dl. Kadar asam amino serum talipusat kelompok BBLR = 6,33 mg/dl, kelompok BBLN = 4,79 mg/dl. Berat plasenta BBLR = 416,66 g. Berat plasenta BBLN = 483,33 g. Kadar glukosa dan asam amino ibu dan bayi dengan berat lahir rendah tidak berbeda dengan berat normal.
.....Serum Levels Of Glucose And Amino Acids Of Mothers And Babies Of Low Birth Weight And NormalScope and Method of Study : During pregnancy, the mother supplies all essential nutrients for fetal growth and development. Maternal adaptations occur to meet the need of optimal fetal growth. Metabolic function changes represent one of the remarkable maternal adaptations. Maternal serum levels of glucose and amino acids increase as a result of the increasing serum levels of human placenta growth hormone (hPGH). The purpose of this study was to compare the glucose and amino acids levels in the serum of mothers with low birth weight (LBW) and normal birth weight (NBW) babies and the cord blood serum of the LBW and NBW babies. The method used in this study was exploration on two pregnant women groups of 38 - 40 weeks of pregnancy. The first group consisted of 15 pregnant women with LBW babies (2000 - 2500 g), and the second group was a group of 15 pregnant women who have NBW babies (2501 - 3500 g). Placenta weight were also taken.
Result and Conclusion : The result of the study showed that, the mean serum glucose level of mothers with LBW babies was 112.4 mg/dl, while that of mothers with NBW babies was 110,93 mg/dl. The mean serum amino acids level of mothers with LBW babies was 5.62 mg/dl, and that of mothers with NBW was 4.45 mg/dl. The mean glucose value in placental cord of LBW babies was 97.13 mg/dl, while that of NBW babies was 107.33 mg/dl. While the mean serum amino acids levels of LBW babies were 6.33 mg/dl, and that of NEW babies was 4.79 mg/dl, The mean placenta weights of LBW babies was 416.66 g and that of NBW babies was 483.33 mg/dl. There was no significant difference in serum levels of glucose and amino

acids in both low birth weight and normal.