
The role of L-carnitine in anemic and Hypoglycemic neonates

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L-Carnitine supplementation improves random blood sugar and hemoglobin level when administered beside traditional treatment of hypoglycemia and anemia. The aim of this study was to evaluate the role of L-carnitine in the prognosis of anemia and hypoglycemia in neonates. In our study a total number of 60 neonates were included and divided into 2 groups: Group 1: Hypoglycemic group, it included 30 neonates, 15 of them received L-carnitine and traditional treatment of hypoglycemia (group A) and other 15 neonates did not receive L-carnitine and were on traditional treatment of hypoglycemia only (group B). Group 2: Anemic group, it included 30 neonates, 15 of them received L-carnitine and traditional treatment of anemia (group C), and other 15 neonates did not receive L-carnitine and were on treatment of anemia only (group D). All groups were subjected to full history taking, thorough clinical examination and laboratory investigations including, Random blood sugar and Hb level in 1st day, end of 1st week, end of 2nd week and end of 2nd month of life. By analysis of the collected data we found that: There was insignificant improvement of random blood sugar in first day treatment of hypoglycemic group A but there was significant improvement after one week and two weeks of L- carnitine. Summary and conclusion - 62 -administration and high significant improvement at the end of second month of L- carnitine administration. As regard the effect of L- carnitine therapy in anemic patients we found that: There was insignificant improvement of Hb level in first day and after one week of L- carnitine administration to anemic group C but there was significant improvement after two weeks of L- carnitine administration and high significant improvement at the end of second month of L- carnitine administration. So we concluded that. Summary and conclusion - 63 -Conclusion L-Carnitine supplementation improves neonatal anemia and hypoglycemia and significant improvement occurs when the duration of treatment is prolonged for more than one month. Summary and conclusion - 64 -Recommendations from the results of our study, we can recommend the following: The use of L- carnitine in neonatal anemia and hypoglycemia as adjuvant therapy to standard treatment for prolonged duration more than one month. Further studies are needed for more evaluation of the role of L- carnitine in the treatment of neonatal anemia and hypoglycemia for more adjustment of the dose and duration of therapy, also we recommend more studies for the role of L-carnitine therapy in preventing hypoglycemia and anemia in neonates at risk. Further studies are also, needed to evaluate the role of L-carnitine in other neonatal diseases as sepsis,

asphyxia, prematurity, ...etc.