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Efficacy of zinc sulfate in reducing unconjugated hyperbilirubinemia in neonates

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ABSTRACT

Hyperbilirubinemia is a common disease and unconjugated hyperbilirubinemia has been seen mainly in neonates. Severe form of unconjugated hyperbilirubinemia may cause kernicterus and even death. Conventional treatment for severe unconjugated hyperbilirubinemia consists of phototherapy and exchange transfusion that have several known disadvantages; specially exchange transfusion is associated with a significant morbidity and even mortality. These harmful effects indicate the need to develop alternative pharmacological treatment strategies for unconjugated hyperbilirubinemia. One of these pharmacological agents is zinc salts. Zinc has been shown to lower the bilirubin levels by inhibition of the enterohepatic cycling of unconjugated bilirubin. Oral zinc has been shown to reduce serum unconjugated bilirubin in animals, adolescents and low birth weight neonates. However, studies in healthy term neonates given oral zinc showed no reduction in hyperbilirubinemia based on daily measurement. In order to improve the accuracy, hyperbilirubinemia may be determined based on measurements every hour. More studies are needed to know the effect of zinc in neonatal jaundice.

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Introduction

In recent years, substantial researches have been carried out to predict neonates who are most likely to develop hyperbilirubinemia. Reliable prediction can reduce hospital stay for low-risk neonates resulting in their early discharge and identifying high-risk

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