

# Effect of clofibrate plus phototherapy on bilirubin concentration of healthy full-term jaundiced neonates

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## ABSTRACT

**Introduction:** Jaundice is one of the most common clinical sign in the neonatal period which in severe form leads to neurotoxicity (kernicterus). This study was carried out to determine the effect of clofibrate on serum bilirubin concentration in icteric otherwise healthy term newborns.

**Methods:** The study was a double blinded, clinical trial in neonatal ward of Shafizadeh pediatric hospital in Babol, Iran. We selected healthy full terms breastfed infants with a birth weight of  $\geq 2500$ gr and total bilirubin of  $\geq 15$ mg/dl from second day of life. Infants with hemolytic disease, need for exchange transfusion and those treated with Phenobarbital were excluded. Newborn babies were divided to two groups (30 cases, 30 controls). All of them received phototherapy and case group was treated with a single oral dose of clofibrate (100mg/kg). The bilirubin concentration was checked at 16 and 24 hours after treatment and every 24 hours apart. Data (collected by a questionnaire including sex, age and bilirubin concentration) were analyzed by SPSS software, statistical t-test and fisher's exact test.

**Results:** The mean plasma total bilirubin concentration at 48 hours and 72 hours after treatment was more lower in the case group than the control group ( $P=0.047$  and  $P=0.024$  respectively). At the end of 72 hours, the number of discharged neonates were higher in the case group as compared with the control group (83.3% and 53.3% respectively with  $P=0.025$ ). No side effect was observed.

**Conclusion:** Clofibrate leads to faster decline in indirect bilirubin concentration and sooner discharge.

**Key words:** Bilirubin – Clofibrate – Jaundice, Neonatal

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