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Jaundice is the most common and one of the most annoying problems that can occur in the newborn infants during the immediate postnatal period. Despite the numerous articles published on this subject, many aspects of neonatal hyperbilirubinemia remain unexplained.

In particular, there is debate on the effect of infant feeding practices on the development of significant hyperbilirubinemia in the first days of life .

The aim of the current work is to study the relationship between feeding practices in the early neonatal period and the development of neonatal jaundice , also to study the association between the mode of delivery and the neonatal jaundice .

The study included 200 healthy full-term newborn infants delivered in Kafr Shokr Central Hospital from 18/1 /2005 to 18/4/2005 . They were divided into two groups :

- 1) **Group I** included 100 full term newborns delivered by normal vaginal delivery , which were subdivided into : group I a (fifty mother – infant dyads who were supported to exclusively breastfeed) , and group I b (fifty mother – infant dyads who were not exclusively breastfeed) .
- 2) **Group II** included 100 full term newborns delivered by cesarean section , which were subdivided into : group II a (fifty mother – infant

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dyads who were supported to exclusively breastfeed) and group II b fifty mother – infant dyads who were not exclusively breastfeed) .

Our data showed that a peak serum bilirubin of over 7 mg/dl is characteristic to the neonates who were not exclusively breastfed from birth as 66 % of non-exclusively breastfed newborns were jaundiced. This is in contrast to the neonates who received exclusive breastfeeding from birth where the hyperbilirubinemia in the first days of life occurred in only 42 % .

The mode of delivery appeared to play a minimal role in the development of hyperbilirubinemia. Our data show that a total serum bilirubin of over 7 mg/dL is significantly associated with cesarean section delivery as 57 % of the neonates were jaundiced. Where as vaginal delivery is associated with hyperbilirubinemia in the first days of life in 53 % of newborns with a serum bilirubin level of over 7 mg/dL.

Sub group analysis by feeding practices in the mother undergo cesarean section versus the one delivered vaginally showed that in the latter group 20 % of exclusively breastfed newborns were jaundiced compared to 40 % of non exclusively breastfed newborns , while in casearen section group 24 % of exclusively breastfed newborns were jaundiced compared to 52 % of non exclusively breastfed newborns.

In conclusion , infant feeding practices play a pivotal role in the development of the neonatal jaundice , exclusive breastfeeding is the ideal method for protecting neonares from the hazards of hyperbilirubinemia , optimal breastfeeding practices that include early initiation of breastfeeding, on

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demand feeding, early eye to eye and skin to skin contact, avoidance of supplemental fluids unless medically indicated and discouragement pacifier use during the first week of life have been shown to decrease incidence of neonatal jaundice and prevent bilirubin from reaching dangerously high levels in newborn babies .

The method of delivery may also influence the development of neonatal jaundice. However the association between delivery by cesarean section is dependent on the method of feeding as women who underwent cesarean section and breastfed infrequently during the newborn's first 48 hours of life became more liable to have jaundiced infants compared to those who exclusively breastfed their babies .

We recommend that all newborns supported be exclusively breastfeed in the first days of life as early initiation of breastfeeding will decrease incidence of significant hyperbilirubinemia .