SUMMARY & CONCLUSION

Neonatal hyperbilirubinemia is a very common entity in neonatal intensive care units. Although jaundice in term and near term infants is generally benign, severe neonatal hyperbilirubinemia with TSB ≥ 25mg and kernicterus continue to be reported word wide in otherwise healthy term infants.

The present study was conducted during the period from December 2009 to June 2010 on 60 jaundiced neonates admitted to private Neonatal Intensive Care unit (NICU) These cases were presented with hyperbilirubinenia with TSB ≥ 17 mg/ dl, cases with conjugated hyperbilirubiemia, congenital malformations, growth retardation or central nervous system disorders excluded , and another 30 non jaundiced term newborns represented as control group

They were subjected to full history taking (presence of complications during pregnancy or delivery, onset of jaundice and APGAR score at 1 and 5 minutes), physical examinations (for vital signs and Ballard scoring for gestational age assessment) and laboratory investigations including (complete blood picture, blood group, Retics, C-reactive protein, total and direct bilirubin and NO, G6PD, GPX, MDA).

By analysis of collected data we found that in cases with hyperbilirubinemia both NO, MDA, (as oxidative stress markers) were elevated & both G6PD, GPX, (as antioxidant markers) were decreased.

Since these states meant that newborns with hyperbillrubinemia have elevated oxidative stress which is harmful process damaging any

molecular target: lipids, DNA, protein, CHO by direct effect or indirectly by changes in ion levels (e.g. Ca^{+}) or activation of protease so we should protect newborns from oxidative stess that result from hyperbilirubinemia by detecting neonatal jaundice early and treat infants suffering hyperbilirubinemia properly.