

(J. Ped. Ortho. J Pediatr Orthop 2007; 27:898). In addition, femoral head DWI was used to calculate apparent diffusion coefficient (ADC). For each measurement the left and right were compared using within subject coefficient of variation (WS CV).

Results 44 neonates were imaged. Median (IQR) gestational age at birth was 36 weeks (range 25–42 weeks), 13 less than 32 weeks gestation; median gestational age at scanning was 41 weeks (range 37–46). 18 babies had HIE of whom 13 were cooled. Mean (SD) and WS CV (95% CI) for the following measurements were: Femoral head ADC 1.87 (0.094) on Right, 1.87 (0.099) on Left, WS CV 2.42 (2.12–2.72); acetabular width 17.1 (1.6) on Right, 17.0 (1.6) on Left, WS CV 3.50 (3.02–3.96); acetabular depth 3.81 (0.81) on Right, 3.81 (0.81) on Left, WS CV 11.6 (10.1–13.1); acetabular width: depth ratio 4.66 (1.0) on Right, 4.66 (1.1) on Left, WS CV 13.6 (11.9–15.2).

Conclusions In this diverse group of babies the variation between sides was minimal. Analysing a single hip should be sufficient in this population.

1326 COMPARISON OF INTENSIVE LIGHT-EMITTING DIODE AND INTENSIVE COMPACT FLUORESCENT PHOTOTHERAPY IN NON-HEMOLYTIC JAUNDICE

doi:10.1136/archdischild-2012-302724.1326

S Takci, S Yigit, G Bayram, A Korkmaz, M Yurdakok. *Hacettepe University Ihsan Dogramaci Childrens' Hospital, Ankara, Turkey*

In severe and rapidly increasing jaundice, the use of high-intensity phototherapy provides greater effectiveness and a faster decrement in bilirubin levels. The aim of this study is compare the effectiveness of intensive compact fluorescent tube (CFT) and intensive LED phototherapy in higher doses of irradiance.

Method Forty three infants over 35 weeks of gestation with severe severe nonhemolytic hyperbilirubinaemia were enrolled in the prospective study. All infants received multidirectional (circular shaped) high-intensity phototherapy. Of these 20 infants received CFT while 23 infants received LED phototherapy. Bilirubin levels and body temperatures were measured periodically and the rates of bilirubin decrement were calculated.

Results Mean serum bilirubin level of the 43 infants was 20.5±1.5 mg/dl at the beginning of the therapy and mean duration of phototherapy was 20.6±1.1 hours. The rate of mean bilirubin decline was 47.2% and the declination was more prominent in the first four hours. Clinical characteristics, initial bilirubin levels, rates of bilirubin decrement and the phototherapy durations were comparable for LED and CFT groups. Slightly elevated mean body temperature (37.1°C) was determined in CFT group ($p<0.05$).

Conclusion Circumferential phototherapy units are effective devices, can provide up to 50% reduction in bilirubin levels within 24 hours in infants with nonhemolytic jaundice. Since it was shown that these devices can provide rapid decrease in bilirubin levels in the first few hours, they are useful in cases with high risk of bilirubin encephalopathy and kern icterus. These units decrease the hospitalization period so can help to maintain breast feeding.

1327 AUDIT ON MANAGEMENT OF NEONATAL JAUNDICE

doi:10.1136/archdischild-2012-302724.1327

¹R Ravindran, ²T Ashraf. ¹NICU, Homerton University Hospital NHS Trust; ²Paediatrics, Whipps Cross University Hospital NHS Trust, London, UK

Background Neonatal jaundice is a common medical problem in postnatal wards. With the introduction of NICE guidelines in UK, the management of jaundice of newborn infants has achieved clarity.

Aims An audit was undertaken to check if local team were adhering to the NICE guidelines on neonatal jaundice management (May 2010) and to make recommendations to improve compliance.

Methods Prospective audit was conducted between January 2011 to August 2011 and 48 newborn infants with jaundice in postnatal ward were randomly selected and included. Data was collected using proforma, baby/maternal notes and blood results on computer system.

Results Poor performance was demonstrated in identifying the risk factor for jaundice-whether baby's previous sibling had jaundice requiring treatment (15% as compared to 100% standard). There was 90% compliance with NICE guidelines (standard 100%) with regards to serum bilirubin (SBR) measured for infants with jaundice <24 hours. 83% of infants (29/35) with jaundice onset >24 hours had transcutaneous bilirubinometry(TCB) measurement which reduced the number of blood tests performed on these infants. Only 75% of the parents of infants with jaundice received information leaflets on newborn jaundice.

Conclusion

1. When used appropriately, TCB reduces need for invasive blood tests and the workload of paediatric doctors on postnatal wards. The midwives and junior doctors should receive training for TCB use and management of jaundice in accordance with NICE guidelines.
2. All parents of newborn infants with jaundice should receive NICE information leaflets on jaundice to increase awareness of the condition.

1328 ASSOCIATION BETWEEN DELAYED PASSAGE OF MECONIUM AND NEONATAL JAUNDICE IN AN UNIVERSITY HOSPITAL IN BRAZIL

doi:10.1136/archdischild-2012-302724.1328

¹SS Nader, ¹PDJH Nader, ¹DF Dolvitsch, ¹H Raymundo Chinazzo. ¹ULBRA, ²HU ULBRA/Mãe de Deus, Canoas, Brazil

Background and Aims Meconium contains large amounts of bilirubin and its retention leads to increased of enterohepatic circulation contributing to neonatal hyperbilirubinemia. The objective of study is investigate the relation of delayed passage of meconium and neonatal jaundice.

Methods This is a cross sectional study realized between August 2011 and March 2012, in rooming-in newborns at Universidade Luterana do Brasil Hospital. All the babies born at term, without hemolytic disease, no fetal anomalies, apgar greater than 7 in the fifth minute and breastfeeding only. The serum bilirubin levels (TBLs) were obtained by the apparatus Dräger Jaundice Meter JM-103®. The transcutaneous bilirubin variable was stratified according to the Bhutani nomogram. Were measured TBLs between 24 and 59 hours of life. The protocol was approved by the institutional review board, and the parents' written consent was obtained.

Results Groups were similar regarding demographics and clinical characteristics. Among the 670 infants studied 118(17.9%) have meconium amniotic fluid (MAF). The TBLs were lower in neonates with higher gestational age ($p<0.001$), MAF ($p=0.007$) and weight loss less than 7.5% at discharge ($p=0.001$). The TBLs, in neonates at ≥ 37 hours of life, were lower in the MAF group when compared with the group not MAF ($p=0.023$). There is no significant association with the classification by Bhutani nomogram and the number of evacuations at discharge ($p=0,051$).

Conclusions The presence of MAF showed lower TBLs. Babies with weight loss $\geq 7.5\%$ have higher probability to have greater TBLs. Further studies are needed for definite results.

1329 COMPARISON OF TRANSCUTANEOUS BILIRUBINOMETER WITH SERUM BILIRUBIN IN NEONATES

doi:10.1136/archdischild-2012-302724.1329

BR Qandalji. Paediatrics, Ministry of Health, Amman, Jordan