

HEPATOBILLIARY SCINTIGRAPHY IN THE EVALUATION OF EXTRAHEPATIC BILIARY ATRESIA (EHBA)

K. Stipsanelli¹, **J. Koutsikos**¹, V. Papantoniou¹, V. Valotasiou¹,
M. Souvatzoglou¹, P. Tziannakopoulou¹, A.G. Manolaki², C.H. Zerva¹

¹Department of Nuclear Medicine, Alexandra University Hospital ²Department of Paediatric,
Agia Sofia University Hospital, Athens, Greece

jtk@e-free.gr

Aim: To separate cases of EHBA as the cause of neonatal cholestasis in children with infantile jaundice and thus accelerate the operative procedure which is very critical in this situation.

Patients and Methods: We studied 17 infants (10 girls and 7 boys) aged 3–16 weeks (mean±SD= 6,6±3,2). The infants were referred with levels of direct bilirubin greater than 2 mg/dl and presented with jaundice which persisted after the 2nd postnatal week, while some of them had colourless stools. All of them had received 5 mg/kg/day phenobarbitone for 5 days prior to Tc-99m mebrofenin scintigraphy. Dynamic images for 30 min after i.v. bolus injection of 6 MBq/kg of Tc-99m mebrofenin, and then static images at 1, 2 and 24 hrs were performed. Interpretation of images was made by two independent observers and semiquantitative analysis was performed (liver/heart ratio). γ -GT levels were correlated, using linear regression analysis, with the liver/heart ratio. Liver/heart ratio values were compared (t – test) in two groups: group A: infants with EHBA and group B: infants without EHBA.

Results: From the 17 infants, 6 were in group A and 11 in group B. Liver/heart ratio was significantly lower in group A (mean±SD= 1,9±0,85) than in group B (mean±SD= 8,5±2,57) (p<0,01). γ -GT levels were inversly correlated with liver/heart ratio in all patients (r= - 0,677 p<0,01).

Conclusion: The liver/heart ratio in combination with γ -GT levels seems to provide useful preoperative information in the differential diagnosis of EHBA.

