

Hyperbilirubinemia and Pelvicaliceal Dilatation

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Dear Editor

Sir, the recent publication on hyperbilirubinemia and pelvicaliceal dilatation is very interesting. Akil et al concluded that "hyperbilirubinemia might not have a direct effect on outcome of the pelvicaliceal dilatation [1]." There were several problems on this work that limited the conclusion. The few subjects and no control of confounding factor (such as genetic disorders that can cause hyperbilirubinemia) were not controlled. Indeed, although pelvicaliceal dilation can cause urinary tract infection and possible further hyperbilirubinemia, it is not the direct one-step relationship [2].

References

1. Akil T, Avci M, Ozturk C, et al. Is there any relationship between hyperbilirubinemia and pelvicaliceal dilatation in newborn babies? *Iran J Pediatr* 2011;21(4): 431-435.
2. Baskin E, Ozçay F, Sakalli H, et al. Frequency of urinary tract infection in pediatric liver transplantation candidates. *Pediatr Transplant* 2007;11(4):402-7.

Author's Reply

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We would like to respond to the letter from Professor Viroj Wiwanitkit to about our study on hyperbilirubinemia and pelvicaliceal dilatation that was published in the last issue of 2011 of Iran j Pediatr [1]. We have a limitation due to our study sample was small and we did not have follow-up data of the included babies. But we have no patient that has confounding factor (such as genetic disorders that can cause hyperbilirubinemia and/or biliary atresia) in our study population. The reasons for hyperbilirubinemia and urinary tract infection are still not fully understood, however the prevalence of urinary tract infection is increased in hyperbilirubinemic neonates than in healthy children. The potential pathogenetic mechanisms may be some hepatotoxins from the infected gram-negative bacilli, and or especially E coli, which might increase the fragility of red blood cells and the production of hemolysin. We think too, as you indicate, it is not a direct one-step relationship.

References

1. Akil T, Avci M, Ozturk C, et al. Is there any relationship between hyperbilirubinemia and pelvicaliceal dilatation in newborn babies? *Iranian J Ped* 2011; 21(4):431-5.
2. Chen HT, Jeng MJ, Soong WJ, et al. Hyperbilirubinemia with urinary tract infection in infants younger than eight weeks old. *J Chinese Med Assoc* 2011; 74:e159-163.

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