



## Hyperbilirubinemia and Neonatal Infection

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### **Introduction:**

Hyperbilirubinemia is a relatively common disorder among infants in Iran. Bacterial infection and jaundice may be associated with higher morbidity. Previous studies have reported that jaundice may be one of the signs of infection. The aim of this study was to determine the incidence rate, presentation time, severity of jaundice, signs and complications of infection within neonatal hyperbilirubinemia.

### **Materials and Methods:**

This cross sectional study was conducted between 2003 and 2011, at Ghaem Hospital, Mashhad- Iran. We prospectively evaluated 1763 jaundiced newborns. We finally found 434 neonates who were categorized into two groups.131 neonates as case group (Blood or/and Urine culture positive or sign of pneumonia) and 303 neonates with idiopathic jaundice as control group. Demographic data including prenatal, intrapartum, postnatal events and risk factors were collected by questionnaire. Biochemical markers including bilirubin level, urine and blood cultures were determined at the request of the clinicians.

### **Results:**

Jaundice presentation time, age on admission, serum bilirubin value and hospitalization period were reported significantly higher among case group in comparison with control group ( $p < 0.0001$ ). Urinary tract infection (UTI), sepsis and pneumonia were detected in 102 (8%), 22 (1.7%) and 7 (0.03%) cases, respectively.

### **Conclusion:**

We concluded that bacterial infection was a significant cause of unexplained Hyperbilirubinemia among jaundice newborns (10%). Therefore, we advise performing screening test for UTI as part of the evaluation in asymptomatic jaundice infants presenting after five days of life and sepsis workup should be request in symptomatic infant especially in the first week of life.

### **Keywords:**

Hyperbilirubinemia, Neonate, Pneumonia, Sepsis, Urinary Tract Infection.

Poster Presentation, N 62

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