

Role of some viral infections in neonatal cholestasis

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Viral infection is one of the postulated causes of neonatal cholestasis. In addition to earlier reports on the association of viral infection and intrahepatic cholestasis (IH), recent studies have suggested a similar link to extra hepatic biliary atresia (EHBA). The aim of this work was to evaluate the role of some viral infections in neonates presenting with cholestasis to the Neonatology Ward of Zagazig University Hospitals. Sixty-two neonates were included in the study (44 cholestatic neonates and 18 apparently healthy neonates as the control group). All neonates were subjected to full history taking and complete physical examination. Laboratory investigations included CBC, liver function tests, bleeding profile, blood cultures, abdominal ultrasound and detection of HBsAg and serum IgM antibodies against certain viruses (CMV, Reovirus III, HSV I, HSV II, Rubella virus) using ELISA. Radionuclide cholescintigraphy was performed for patients only. The study revealed that cholestatic neonates were significantly associated with dark urine, pale stool and hepatomegaly compared with the control ($P < 0.004$, $P < 0.001$, $P < 0.008$, respectively). Quantitation of IgM antibody titre using ELISA revealed significantly higher levels of serum anti-CMV IgM and anti-Reovirus III IgM in cholestatic than in the control groups. No significant differences were found in levels of anti-HSV I, anti-HSV II or anti-rubella antibodies between cholestatic and control groups. HBsAg was negative for all neonates; cholestatic and control. Lastly, no significant differences were found between neonates with EHBA (7 cases) and Intrahepatic cholestasis (37 cases) regarding anti -CMV IgM or anti -Reo III IgM. It can be concluded that CMV and Reovirus type 3 infections of the neonates are associated with the development of cholestatic disorder, not only due to IH cholestasis but also due to the production of EHBA.