HEPATITIS C

Hepatitis C virus (HCV) is an RNA virus. It is an important cause of chronic liver disease and is relatively prevalent in Australia and South East Asia. The virus replicates in the liver and is readily present in the bloodstream. The majority of acute infections become chronic. Chronic HCV infection is an important cause of hepatic dysfunction and hepatocellular carcinoma. Treatment of chronic infection is available, but cure rates vary depending on viral genotype and possibly host factors.

HCV is readily spread by exposure to infected blood; therefore injecting drug users are at highest risk for Hepatitis C infection. In addition, HCV can rarely be spread through sexual contact. Vertical transmission from affected mother to infant occurs. The risk is 5-10% for mothers who are HCV RNA positive (ie: PCR positive), but significantly higher (25-30%) if the mother is co-infected with HIV. Of the ~250,000 births per year in Australia, about 75 children with vertically acquired HCV infection will be born per year. There is no currently available method of preventing or reducing vertical transmission.

KEY POINTS
- No special precautions are necessary for the care of the newborn in the nursery. Standard precautions are sufficient. There is no risk of virus transmission from urine or stool.
- Check mother has been tested for other blood borne viruses, in particular HIV and Hepatitis B.
- Breast-feeding is generally considered safe; mothers should be warned of the increased risk of transmission if they have cracked nipples. Until the nipples heal the neonate should be fed with formula and the mother should express her milk and discard it.
- No infants have been found to be viraemic at birth, so testing of cord blood or from the neonate at birth is not necessary.

BREAST FEEDING
Breast-feeding does not appear to play a significant role in the mother-to-infant transmission of HCV. However, HCV RNA has been found in breast milk in women with very high circulating viral loads, but usually at a much lower level than in the blood. As mothers with very high viral loads are
more likely to transmit the virus at birth, the significance of the HCV in the milk in these women is not certain. Current advice from Centre for Diseases Control is that breast-feeding is not contra-indicated in HCV positive women. Those women with cracked nipples should not breast feed whilst their nipples are damaged. Women co-infected with HIV should definitely not breast-feed, as this significantly increases the risk of HIV transmission. [Hepatitis C and Breastfeeding]

TESTING OF NEONATES

- Parents should be counselled and offered testing of their infants to see if they have acquired HCV. Anti-HCV antibodies passively derived from the mother decline after birth, and are usually absent by 18 months. Therefore, uninfected infants should be antibody-negative by 18 months.
- PCR for HCV RNA can be undertaken from 3 months. PCR has a very low sensitivity in very young infants, so should not be done prior to this time.
- It is usually suggested that testing be delayed until the infant is over 18 months of age, because passively acquired maternal anti-HCV antibodies may be present in the infant until this time. Testing can be arranged through the PMH infectious diseases clinic or family GP.
- Diagnosis in the first years does not usually lead to any medical intervention. The infected infants should receive Hepatitis B vaccine, as they are more at risk of contracting hepatitis B and the infection may be more severe in a patient with established hepatitis C. Hepatitis A vaccine should be given to HCV infected children when they are 2 years of age.
- Infants who are Hepatitis C-positive should be followed up by the gastroenterologists at PMH. [Complete the 'Maternal Hepatitis C Infection and Neonatal Follow-up Letter]

TREATMENT

Spontaneous clearance of HCV in vertically infected infants has been reported. There are therapies available for people with HCV infections and ongoing liver disease, including Interferon and Ribavirin. Response rates vary depending on the HCV genotype and treatments used. Treatment of children with liver disease and HCV is a difficult area and specialist advice should be sought.

REFERENCES

Infection Control Manual WNHS 2014: [Prevention and Management of Infectious Diseases: Standard precautions]

Dore G. Law M, MacDonald M et al Epidemiology of hepatitis C virus infection in Australia J Clin Virology 2003:26;171-184


