Service Priorities and Programmes

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To review the safety of existing service of prenatal diagnostic invasive procedures in hepatitis B carrier pregnant ladies.

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Introduction

Prenatal diagnostic invasive procedures including amniocentesis and chorionic villus sampling (CVS) are carried out most commonly due to positive Down syndrome screening. However, there have been concerns in the literatures over safety when carried out in hepatitis B carrier pregnant ladies.

Objectives

To ensure patient safety and provide highest quality of care by reviewing our database together with Queen Mary Hospital to assess if there are associated adverse outcomes.

Methodology

The database of a prenatal diagnostic laboratory and two public hospitals was retrospectively reviewed from 2000 to 2011. With the use of descriptive statistics, the Chi-square test, t test and logistic regression, the effects of HBsAg status and an invasive procedure on adverse pregnancy outcomes were analysed.

Result

Results: A total of 13,686 pregnancies including 5,361 pregnancies with an invasive procedure and 8,325 controls were analyzed. There were 4,748 amniocentesis, 589 CVS and 24 cordocentesis. The proportion of HBsAg-positive women in CVS group (21.1%) or cordocentesis group (25.0%) was higher than amniocentesis group (7.6%) or control (without undergoing an invasive procedure) (8.0%). Overall, the miscarriage or preterm rate was higher after a procedure than control (P<0.001). Within each of the procedures or control, there was no significant difference in the pregnancy outcomes or preterm rate between HBsAg-positve and HBsAg-negative women. In HBsAg-positive women, the only significant finding was a higher preterm rate after a CVS than control (15.0% vs 6.5%; P= 0.005). The difference in the miscarriage rate between a CVS (1.6%) and an amniocentesis (0.3%) was not significant. On multivariate logistic regression, the procedure was the significant factor affecting miscarriage or preterm delivery (P<0.001) while HBsAg status was not. Conclusion: There is no significant increased risk of prenatal diagnostic invasive procedures in

hepatitis B carrier pregnant ladies, although our review is not large enough to be conclusive. We will continue monitor the clinical outcomes in this group of patients in order to ensure patient safety and provide highest quality of care.