Interferons are a group of naturally occurring macromolecules with antiviral, antiproliferative and immunomodulatory properties, and interferon beta is currently the most widely used therapy for multiple sclerosis. However, limited data in primates suggests that interferon beta may be abortifacient. Due to this and due to lack of experience with drug safety, it is usually suggested that either treatment is suspended when a pregnancy is planned, or a critical assessment of the pros and cons of ceasing therapy should be performed.

A literature review of the last ten years identified nine papers, which looked at maternal (relapse rates, mode of delivery) and fetal/neonatal outcomes (spontaneous abortion, pre-term delivery, birth weight, birth defects, still births and developmental milestones) associated with its use in pregnancy.

The literature review highlighted conflicting results, however, on the whole, for most outcomes most studies did not associate IFN beta use during pregnancy with adverse outcomes. Further trials investigating important maternal, fetal and neonatal outcomes are called for.

PM.32 PLATELET FUNCTION IS SIGNIFICANTLY REDUCED IN THE FIRST TRIMESTER OF PREGNANCY COMPARED TO THE NON-PREGNANT STATE

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Abnormalities of platelet function have been implicated in a number of obstetric complications and anti platelet therapy is used to prevent certain conditions. Research of platelet function in pregnancy has yielded conflicting results. We sought to critically evaluate platelet reactivity in pregnancy using an assay which allowed several agonists of varying concentrations to be assessed concurrently and aimed to clarify platelet reactivity in normal pregnancy.

A prospective longitudinal study was performed throughout uncomplicated singleton pregnancies with patients recruited prior to 15 weeks' gestation. They were controlled for a number of factors known to affect platelet reactivity. Blood samples were obtained in each trimester (n = 36). Thirty non-pregnant healthy female volunteers also had a platelet assay performed. A modification of standard light transmission aggregometry was used to assess platelet reactivity, with light absorbance measured following addition of 5 different agonists at sub-maximal concentrations. Dose-response curves were plotted and the Ec50 was calculated for each agonist.

Platelet reactivity, as demonstrated by the Ec50, was significantly reduced in the 1st and 2nd trimester of pregnancy compared to the non pregnant state particularly with respect to collagen, ($p = 0.002$). Within the pregnancy cohort the platelet reactivity increased as the pregnancy progressed, most evident in response to arachidonic acid (AA) ($p = 0.033$).

This study demonstrates that platelet reactivity is altered in pregnancy, highlighted by the significant reduction in reactivity seen in the 1st trimester. This information will be critically important for designing and interpreting interventions to prevent obstetric complications, such as preeclampsia.

PM.33 THE OBSTETRIC MANAGEMENT OF HAEMOPHILIA CARRIERS AND PATIENTS WITH VON WILLEBRAND'S DISEASE IN LEEDS

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Background Haemophilia and von Willebrand's disease (vWD) are inherited bleeding disorders that present significant obstetric challenges, including risks of neonatal intracranial haemorrhage and postpartum haemorrhage (PPH). The ideal mode of delivery can also be controversial.

Aims To assess the obstetric management of haemophilia carriers and vWD patients within the Leeds Teaching Hospitals Trust and to identify any maternal/neonatal complications.

Method 10 year retrospective audit of 24 women (10 haemophilia carriers; 14 vWD patients) identified from the Obstetric-Haematology Clinic between 2001 and 2011 in Leeds. Maternal and neonatal management was compared to the BJH guidelines.[1, 2]

Results From the 10 haemophilia patients, 9 had antenatal gender identification (7 were male and 5 affected). There were 4 PPHs in the vWD group (not exceeding 800 mls). Amongst the haemophilia patients 9 had a normal delivery and 1 had an elective C-section. In the vWD group 11 had normal deliveries, 2 had elective C-sections and 1 had a rotational forceps. 1 fetal blood sample was performed in the haemophilia group and 2 fetal scalp electrodes were used in the vWD group (both contraindicated). There was no neonatal morbidity amongst the haemophiliac patients but 4 babies in the vWD group sustained bruising/prolonged bleeding which were forceps and im vitamin K-related respectively.

Conclusions Vaginal delivery was the preferred mode of delivery and was not associated with any significant maternal or neonatal morbidity. Managing these patients through a multidisciplinary approach optimises their antenatal care and ensures that an intrapartum management plan is discussed and clearly documented.

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PM.34 IMMUNE THROMBOCYTOPENIA IN PREGNANCY

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Immune thrombocytopenia (ITP) is the most common cause of thrombocytopenia in the first half of pregnancy and occurs in one or two per thousand pregnancies. The management of these pregnancies is often directed at maintaining a sufficient platelet count for delivery and other labour ward procedures. A retrospective review, of pregnancies complicated by ITP, was performed to determine mode of delivery and mean platelet counts during pregnancy.

Patients with ITP were identified from the maternal medicine database. Delivery demographics for these patients were obtained from the hospital's database. Platelet counts were obtained for each trimester of pregnancy for the mother and the neonate.

There were 39 pregnancies, complicated by ITP, identified from 2005–2012. 15 were nulliparous and 5 of the patients had two pregnancies during the study period. The majority had a vaginal delivery (76.9%). The mean platelet count in the first trimester was 119,200/μl (range 27,000–365,000/μl). In the second trimester, the mean platelet count fell to 99,400/μl (16,000–255,000/μl) and to 89,000/μl (22,000–231,000/μ) in the third trimester. There were 8 patients with platelet counts less than 50,000/μl in the third trimester. The mean neonatal platelet count on day one of life was 200,700/μl (42,000–414,000/μl) and 149,500/μl (15,000–279,000/μl) on day four of life. There were 5 neonates with platelets less than 50,000/μl.