Approved by Quality & Patient Safety Committee
20 September 2012

CHOLESTASIS OF PREGNANCY – DIAGNOSIS AND MANAGEMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Diagnosis and management of obstetric cholestasis

2. PATIENT

- Pregnant woman in the second half of pregnancy experiencing itch (pruritus) in the absence of a skin rash (other than excoriation) and associated with raised bile acids with or without abnormal liver function tests (raised AST/ALT/GGT) and with no alternative cause and resolving after delivery

3. STAFF

- Registered Midwife
- Medical Officer

4. EQUIPMENT

- Cardiotocograph (CTG) machine

5. CLINICAL PRACTICE

Diagnosis

- Consider the diagnosis of obstetric cholestasis in any woman presenting in pregnancy with pruritus without a rash, particularly where the pruritus involves the palms of the hands and the soles of the feet**.** Other less common symptoms include jaundice, diarrhoea, dark urine and pale stools
- Take a thorough history (including recent infection/medication/drug use) and investigate with *fasting* bile acids and liver function tests
- Exclude other causes of abnormal liver function including but not limited to: pre-eclampsia, gallstones and hepatitis
- Consider other causes of pruritis and abnormal LFTs. including viral screen for hepatitis A, B and C, Epstein Barr and cytomegalovirus, a liver autoimmune screen for chronic active hepatitis and primary biliary cirrhosis (for example, anti-smooth muscle and antimitochondrial antibodies) and liver ultrasound
- Diagnose cholestasis where the liver enzymes or *fasting* bile acids are raised above the normal pregnancy range. If the biochemistry is normal but the woman has persistent unexplained pruritus repeat the LFTs/bile acids every week

Management

For mild disease close to term, no treatment may be required

- Consider Ursodeoxycholic acid (Ursofalk) at a starting dose of 500mg bd (maximum 500mg tds, 10-15 mg/kg daily) to control the pruritus and improve the maternal liver function.
- Consider prescribing Vitamin K 10mg orally (by breaking the ampoule) or 10mg IV as a stat dose on day of delivery, particularly in women with severe or early onset cholestasis, or with a prolonged prothrombin time
- Prescribe sedating antihistamines eg Promethazine (Phenergan) 25mg nocte if required to assist with sleep
- Avoid hot showers, scratching, rubbing the skin

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ROYAL HOSPITAL FOR WOMEN

LOCAL OPERATING PROCEDURE

CLINICAL POLICIES, PROCEDURES & GUIDELINES

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Monitoring

- Maternal :
  - Monitor the LFTs weekly. Current evidence does not support ongoing testing of bile acids
- Fetal :
  - Consider ultrasound to assess fetal growth (and exclude pre-eclampsia) and offer referral to Antenatal Day Stay for Cardiotocography of the fetus on a weekly basis. Inform the woman current evidence does not indicate that this will prevent fetal death in utero
  - Advise that she have continuous electronic fetal monitoring in labour
- Inform the woman that :
  - She has an increased chance of pre-term labour and meconium-stained liquor in labour
  - There may be an increased rate of stillbirth particularly with early onset cholestasis or severe biochemical abnormalities, however the risk is very small
  - Discuss and offer delivery after 37 + 0 weeks of gestation; include risks of need for respiratory support to the neonate: approximately 10% admission rate to special care baby unit following elective Caesarean section at 37 weeks without steroids and 5% with steroids, 6% at 38 weeks gestation without steroids and 3% with steroids[1]
  - There is a high risk (up to 60%) of recurrence in a future pregnancy
  - The condition usually resolves rapidly after delivery
- Cease treatment immediately after delivery and check LFTs at 3 – 5 days post partum. Continue monitoring until they have returned to normal. If liver function does not normalise by 6 – 8 weeks post-partum, refer for further investigation
- Recommend infant be given usual dose of 1mg IM Vitamin K

6. DOCUMENTATION

- Integrated Clinical Notes
- Referral to Antenatal Day Stay

7. EDUCATIONAL NOTES

- Pruritus in pregnancy is common, affecting approximately 1:4 women, most of whom do NOT have cholestasis. Dry skin and eczema are common causes of pruritis in pregnancy. PUPPS (pruritic urticarial papules and plaques of pregnancy) is a commoner condition than cholestasis but always causes a rash.[2] These conditions will not usually cause itch on the palms or soles
- Obstetric cholestasis is commonest in women of Indian or South-American origin (up to 15% of pregnancies) and less common amongst Caucasians (up to 1% of pregnancies)
- Some women develop pruritus days/weeks before the development of abnormal liver function
- Topical treatments are unlikely to be successful for the treatment of pruritus caused by cholestasis
- Treatment with ursodeoxycholic acid is associated with a reduction in LFT abnormalities and bile acid levels in the majority of patients
- Ursodeoxycholic acid is an expensive medication costing over $300 per pack of 100 x 250 mg tablets. Its use in this condition is off–license
- Monitoring fasting bile acids is unlikely to alter management
- Studies remain unclear on the link between cholestasis and stillbirth, since modern management invariably includes offering delivery after 37 weeks gestation, it is difficult to quantify whether or not there is an ongoing greater risk of stillbirth[2]
- Obstetric cholestasis may reduce the absorption of vitamin K and lead to increased rates of post-partum haemorrhage[3], however there are no randomised controlled trials in the area

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8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Cardiotocography (CTG) - Antenatal

9. REFERENCES

1 Stuchfield P, Whitaker R, Russell I: Antenatal Steroids for Term Elective Caesarean Section BMJ 2005;331:662
2 Obstetric Cholestasis, Green-top guideline 43 *RCOG* 2011
3 Kenyon AP, Girling JC Obstetric Cholestasis, outcome with active management: a series of 70 cases. *BJOG* 2002;109:282-8

REVISION & APPROVAL HISTORY

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