

Pruritus in pregnancy can be normal, but it can also be related to dermatological conditions and other liver-based diseases. The challenge is to identify the cause of the itching. One suggested cause is a complex condition called obstetric cholestasis (OC).

Recently, two women were told that their itching could not be OC because of the area of presentation (hands and feet for one, generalised for the other) – both went on to have stillbirths after 38 weeks. Each was retrospectively diagnosed with OC, as antenatal bile acids for both were over $100\mu\text{mol/l}$. An understanding of how this could occur might be found by reviewing what is known about the condition.

OC also known as intrahepatic cholestasis of pregnancy (ICP) was first described in 1883 by Ahlfeld, who reported on a pregnant woman with jaundice that resolved on delivery (Thorling, 1955). In the 1950s, Thornburg and Thorling highlighted pruritus, not jaundice, as the common presenting symptom (Svanborg, 1954; Thorling, 1955). Often intense, and worse at night, it was typically noticed on the palms of the hand and soles of the feet. It also appeared to have one further devastating corollary – stillbirth.

The aetiology of the condition is complex, but includes genetic, hormonal and environmental factors (Geenes and Williamson, 2009). Several candidate genes have been identified and work is continuing in this area (Dixon and Williamson, 2009). Oestrogen and progesterone seem to be implicated (Reyes, 2008). Environmental factors include selenium (Reyes et al, 2000), infection (an increased incidence for those women with hepatitis C) (Paternoster et al, 2002), drug-induced cholestasis (particularly after taking antibiotics) (Johnston and Baskett, 1979) and, unusually, seasonal variation – a

Itching in pregnancy is normal, but sometimes it can mean a woman is suffering from an underlying condition that can prove fatal for the fetus, as founder of OC Support UK **Jenny Chambers** explains.

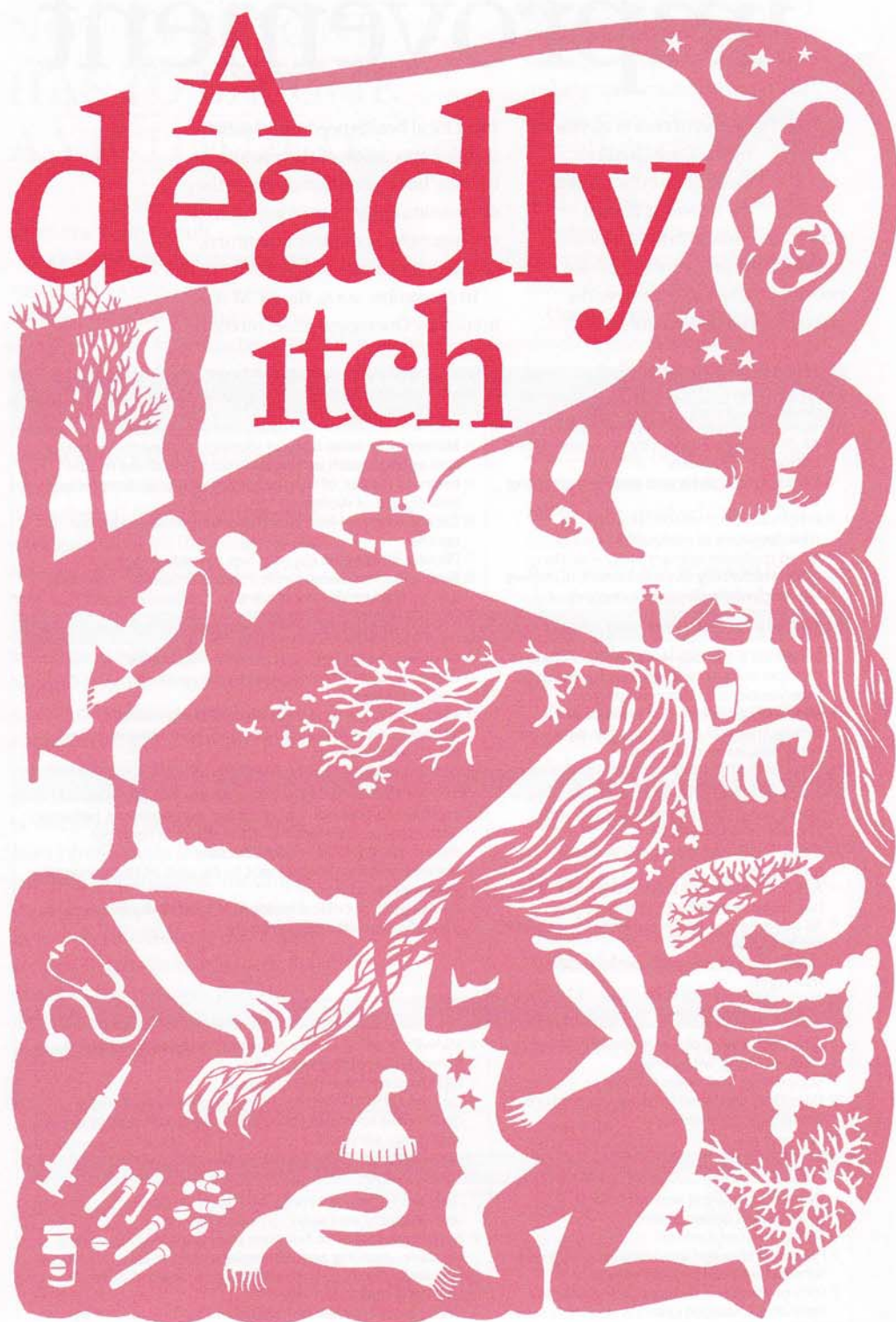


ILLUSTRATION: MAUREEN VALFORT

larger number of cases present in the winter (Berg et al, 1986). Incidence varies worldwide, with reports of up to 25% in Chile to 0.7% in the UK, but 1.2% for those UK women whose family birth origins are India or Pakistan (Abedin et al, 1999).

The presenting symptom of OC is pruritus, which is more noticeable at night. Researchers are not sure why this is. Other symptoms include dark urine, steatorrhea and, less commonly, jaundice. Itching can be intense or mild and there appears to be no correlation between intensity of itch with increased fetal risk.

Pruritus is typically reported in the third trimester (Reyes, 1992), although it may also present as early as the first (Berg et al, 1986) and can occur on other parts of the body, while absent on hands and feet.

Diagnosis is made by excluding other liver diseases. Blood tests generally include liver function tests, auto-antibodies, hepatitis B and C, and bile acids. Bile acid levels will often rise before the liver function tests become abnormal and may also be implicated in risk to the fetus. Recent research suggests that this risk is absent if levels are under 40µmol/l (fasting sample) (Glantz et al, 2004). The risk is not fully understood, but may be due to the effect of bile acid toxicity on

SOME STUDIES REPORT A **10-15%** INCIDENCE OF STILLBIRTH

fetal heart cells (Williamson et al, 2001) and the placenta. Women can often itch for some time before the bile acid levels/liver function tests become abnormal, so continued investigation until delivery is important (Kenyon et al, 2001).

There is little morbidity for affected women other than an increased risk of postpartum haemorrhage (Shaw et al, 1982). Some may be more likely to develop liver disease, including gallstones (Ropponen et al, 2006). Itching generally disappears within days of delivery and liver function tests usually resolve by six to 12 weeks, although some women have been known to take longer (Olsson et al, 1993).

For the fetus, there is an increased risk of distress, spontaneous premature labour, meconium staining and, in severe cases, stillbirth (Davies and Elias, 1993). Some studies report a 10% to 15% incidence of stillbirth, but small study numbers make it difficult to quantify this risk.

Treatment typically includes the use of ursodeoxycholic acid (UDCA) (Glantz et al, 2008), together with oral vitamin K. Rifampicin has also been used concomitantly with UDCA when women have failed to respond to the drug, despite increasing dosage up to 2gm per day (Geenes and Williamson, 2009). In an attempt to reduce the risk of stillbirth, early delivery at 37 to 38 weeks has evolved. None of these treatments are evidence based, although there is a pilot double-blind trial (Pregnancy Intervention Trial in Cholestasis (PITCH), Chambers, 2009) in progress that is evaluating UDCA and earlier versus spontaneous delivery.

Recurrence of the condition has been quoted at 60% to 90%. Women are advised to avoid hormonal contraception, but some have taken the combined pill with no reports of itching or abnormal liver function. There is a trend for women to develop 'cyclical itching' just before ovulation and menstruation.

So, with its complexities, it is not unreasonable for health professionals to ponder on how to recognise, treat and manage OC. My 'take home' message would be to investigate all itching – be mindful that the condition has many variables, and always listen to the mother. **M**

Further information

For further information about OC Support UK, please visit: www.ocsupport.org.uk

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