Clinical Case Reports and Reviews

Case Report ISSN: 2059-0393

Acute anaphylaxis after ampicillin administration in labour

Stephen J Robson*

Department of Obstetrics and Gynaecology, Canberra Hospital, Australia

The change from risk-based approaches to universal screening programs for group B streptococcus (GBS) in pregnancy has been associated with a decreased incidence of early-onset GBS sepsis in neonates in Australia [1]. However, the number needed to treat with antibiotics to prevent one case of GBS disease in a term neonate is almost 1200. This means that many thousands of otherwise asymptomatic women will be treated with intravenous antibiotics at a time of particular vulnerability – during labour.

Case report

A 36 year old woman presented with prelabour rupture of the membranes at 34 weeks gestation in her third uncomplicated pregnancy. The maternal observations were normal and a cardiotocograph (CTG) tracing reassuring. She had not yet had screening for GBS, so was prescribed intravenous ampicillin in accordance with local hospital protocol. A history of allergy was specifically sought and the woman reported having taken penicillins in the past with no adverse effects. Within seconds of the first dose of ampicillin being infused, she developed anaphylactic shock. There was gross swelling of the lips with respiratory distress, profound hypotension and maternal obtundation. She was resuscitated with lateral positioning, supplemental oxygen, and rapid infusion of both Hartmann's solution and Gelfusin™ through two peripheral lines. Medical treatment was with subcutaneous adrenalin, intravenous hydrocortisone and intramuscular promethazine. Fortunately, the oxygen saturation remained within normal limits, and over a 20 minute period the blood pressure returned to normal levels. The CTG was re-applied and revealed a fetal bradycardia that returned to a normal baseline, and then became reassuring. In view of the gestation and rapid recovery, it was planned to monitor the fetus with continuous CTG and await events. Regular contractions began shortly thereafter, but the initially reassuring CTG soon showed variable decelerations. In view of the high levels of anxiety amongst all concerned, an emergency caesarean section was performed. The baby weighed 2.1 Kg and had a cord pH at delivery of 7.28. Both mother and baby made an excellent recovery.

Discussion

Acute anaphylactic shock during labour is an alarming experience, associated with high levels of morbidity and mortality [2,3]. The profound maternal hypotension associated with anaphylactic reactions in pregnancy can result in severe neonatal hypoxaemic ischaemic encephalopathy [2]. Universal screening approaches for GBS are likely to lead to large numbers of women receiving intrapartum antibiotics. Although this case was slightly different, it illustrates, well that administration of antibiotics to a labouring woman is not necessarily a benign intervention. The prevalence of serious penicillin allergy in the pregnant population remains unclear but is probably very low, and fortunately many women will be aware of their sensitivity. Women with known allergy who are being treated prophylactically will need careful selection of the antibiotic [4]. However, we cannot stress enough that those involved in pregnancy care maintain high levels of confidence in their ability to manage acute anaphylaxis in the pregnant woman. Furthermore, women included in universal screening programs need to be informed about the possibility and potential consequences, for themselves and their babies, of antibiotic allergy before agreeing to participate.

References

1. Angstetra D, Ferguson J, Giles WB (2007) Institution of universal screening for Group B streptococcus (GBS) from a risk management protocol results in reduction of early-onset GBS disease in a tertiary obstetric unit. *ANZJOG* 47: 378-382. [Crossref]

2. Berardi A, Rossi K, Cavalleri F, Simoni A, Aguzzoli L, et al. (2004) Maternal anaphylaxis and fetal brain damage after intrapartum chemoprophylaxis. *J Perinat Med* 32: 375-377. [Crossref]

3. Dunn AB, Blomquist J, Khouzami V (1999) Anaphylaxis in labor secondary to prophylaxis against group B Streptococcus. A case report. *J Reprod Med* 44: 381-384. [Crossref]

4. Matteson KA, Lievense SP, Catanzaro B, Phipps MG (2008) Intrapartum group B streptococci prophylaxis in patients reporting a penicillin allergy. *Obstet Gynecol* 111: 356-364. [Crossref]

Correspondence to: Stephen J Robson, Department of Obstetrics and Gynaecology, Canberra Hospital, Australia, Tel: +61 2 6282 3033; **E-mail:** stephen.robson@anu.edu.au

Received: December 24, 2015; **Accepted:** January 22, 2016; **Published:** January 25, 2016