AIMS For a better birth...

Research Roundup

Andrea Nove

AIMS Journal, 2012, Vol 24 No 3

- Caesareans and increased risk

Caesareans and increased risk

J.P. Souza, A.M. Gülmezoglu, P. Lumbiganon, G. Carroli, B.Fawole, P Ruyan (2010) Caesarean section without medical indications is associated with an increased risk of adverse short-term maternal outcomes: the 2004-2008 WHO Global Survey on Maternal and Perinatal Health. BMC Medicine 8(71). www.biomedcentral.com/1741-7015/8/71

This study analysed 286,565 deliveries in medical facilities from 24 countries in Asia, Latin America and Africa. Previous studies using this dataset have found that caesarean section (CS) is associated with a higher risk of adverse maternal outcomes. This study focused particularly on caesareans for which there was no medical reason for the procedure (such as maternal request or physician recommendation without clear clinical justification). These cases made up 1% of all deliveries in the dataset (n=2,685).

As the title of the study suggests, caesarean without medical indication was found to be associated with a significantly higher risk of negative outcomes for the mother. In comparison to spontaneous vaginal delivery at a medical facility, caesarean without medical indication was associated with a higher risk of: maternal death, admission to intensive care, blood transfusion and hysterectomy within seven days of birth. The same pattern was evident in all three continents, but the difference was particularly stark in Africa. If the caesarean was performed after labour had commenced (intrapartum caesarean), the risks were higher than if it was performed before labour commenced (antepartum caesarean). The risk of maternal death and hysterectomy was even higher for intrapartum caesarean without medical indication than for caesarean with medical indication.

The study also considered negative outcomes for the baby, and found that the risk of negative infant outcomes was significantly higher if there was an intrapartum caesarean without medical indication, but not if there was an antepartum caesarean without medical indication. In comparison to spontaneous vaginal delivery at a medical facility, intrapartum caesarean without medical indication was associated with a higher risk of perinatal death (including stillbirth and early neonatal death) and a stay of =7 days in intensive care. The risk of these negative infant outcomes was not significantly different if antepartum caesareans without medical indication were compared with spontaneous vaginal births.

Using statistical modelling, the study aimed to adjust for the differences between the type of woman who has a caesarean without medical indication and the type of woman who has a spontaneous vaginal delivery in a medical facility (for example birth order, birth history, age, level of education, relevant health conditions), for differences between medical facilities (such as complexity of hospital casemix) and for differences between countries. However, modelling can adjust only for the known characteristics of the mother, the medical facility and the country. There may be other, unmeasured, characteristics which partly or fully explain the difference between caesareans and vaginal births, so it would be wrong to assume that the caesarean was the sole cause of the increased risk. Nonetheless, in the absence of a randomised controlled trial (RCT) - which would be impossible (and unethical) - it is the best available way to answer the research question. It should also be noted that the method used for the survey resulted in most of the sampled countries being in the developing world, so we cannot assume that the same results would be obtained in countries such as the UK and the USA (nor indeed in developing countries that weren't included in the sample).

These results indicate that the perception of caesarean as a generally safe procedure is misguided, at least in the countries covered by this study. Whilst caesarean can undoubtedly save lives if there is a clear medical reason for the procedure, women should not be led to believe that it is necessarily as safe as vaginal birth in the absence of medical indications. The relative risks are particularly high if the decision to have a caesarean without medical indication is taken after labour has commenced.

Reference

- www.biomedcentral.com/1741-7015/8/71