AIMS For a better birth...

Research Roundup

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Dangers of Antibiotic Vaginal Cream

Infection in the vagina can trigger early labour and cause premature births. Clindamycin is a vaginal cream which is effective in reducing harmful organisms and helping to restore a healthy balance so that the helpful lactobacilli flourish.

Doctors in the Netherlands did a randomised trial of clindamycin or a placebo cream on women who had had a premature labour in their previous pregnancy, to see if it would help them carry this baby to full term. The women used the cream at 26 and 32 weeks.

The results were unexpected. 4 out of the 85 placebo group had their babies before 34 weeks. 10 of the 83 clindamycin group had pre-34 week deliveries. None of the babies in the placebo groups got infections; 6 of the clindamycin group did - and 1 case was fatal. Another of the clindamycin group died in the womb of unknown cause.

Studies published in 1990 and 1994 had shown that clindamycin treatment caused a short term increase in some organisms like Enterococci and E. coli.

AIMS Comment

Only 22 of the 168 women in the trial had signs of bacterial infection before the trial started. This study shows that giving antibiotic cream to women at risk of premature labour who do not have infections can do more harm than good.

Reference

- Vermeulen G and Bruinse H, Prophylactic administration of clindamycin 2% vaginal cream to reduce the incidence of spontaneous preterm birth in women with an increased recurrence risk: a randomised placebo-controlled double blind trial, Br J Ob Gyn, 1999; 106: 652-7.

Pain Relief From Water Injections

A new trial from Sweden has shown that injections of sterile water under the skin are effective in relieving lower back pain in the first stage of labour

99 women with severe lower back pain were divided into three groups. One third had four injections 0.1 ml of sterile water intracutaneously (into the skin) in the lower back. Another third had four injections of 0.5 ml sterile water subcutaneously (under the skin). The final group had four injections of 0.1ml of saline subcutaneously. This was the "placebo" group. The injections were given during a contraction while the women breathed gas and oxygen.

The midwife caring for a woman did not know which treatment she had had. The women were asked to mark on a chart their pain levels before the injections, and at intervals afterwards - 10, 45 and 90 minutes. In all three groups pain had gone down 10 minutes after the injections - but it went down most in the first two groups, and least in the third, placebo group.

At 45 minutes pain was still markedly reduced in the first two groups but had gone back almost to base level for the placebo. At 90 minutes Pain levels had risen in Group 1 (though not to pre-treatment level) and had risen much less in Group 2. Group 3 had as much pain as they started with.

However, women found the injections for the placebo less painful than they found injections for Groups 1 and 2. The authors wanted to see if subcutaneous injections of water would be less painful than intracutaneous, but there seemed to be no difference.

AIMS Comment

There have been earlier studies showing that these injections can relieve back pain in labour. As so many women are unwilling to expose their babies to the effects of drugs, it is surprising that they are not more widely offered.

Reference

- Martensson L and Wallin G, Labour pain treated with cutaneous injections of sterile water: a randomised controlled trial, Br J Ob Gyn, 1999; 106: 633-7.

Zinc and the Development of the Fetus

In this study[1] doctors looked at the effects of zinc supplements on the behaviour of the fetus in pregnant women in Peru. The women lived in an impoverished shantytown in Lima, and it is known that they are

likely to have a diet low in zinc.

Between 1995-7, almost 1300 women were randomly allocated to have supplements - a tablet containing folic acid and iron, with or without added zinc. The main aim of the study was to see if birth outcomes were improved.

In 1996 a sub-study was added to see if the zinc affected the neurobehavioural development of the fetus. 55 women had electronic fetal monitoring with a Doppler transducer for 50 minutes at 32 and 36 weeks.

Babies whose mothers had zinc moved more often, and more vigorously, and this could mean improved development in children in a malnourished population. However, the small numbers and the fact that other human, as well as animal, studies do not show a consistent association between more fetal movements and good outcome, means the results have to be interpreted with caution.

AIMS Comment

The main proof of benefit - or otherwise - of zinc supplements is in outcomes in the main sample of 1300 - live births, birthweight, health of the babies, and subsequent health of the children. We do not have the results of that major study.

We wonder if our readers share our unease at this extra study. Overall research on effects of nutritional supplements in poor populations is important. But we are uneasy when poor women in the Third World are used in studies which are unlikely to be of benefit to them or their babies, using expensive technology their countries cannot afford, but which add admirably to the research CVs of the doctors and top up some aspect of scientific knowledge.

Given the social, nutritional, and health care needs of these women, how useful was this study likely to be? It was a non-therapeutic study, e.g. it was not likely to offer any benefit to the research subjects, whether mothers or babies. And it was not risk-free. Evidence that exposure to Doppler ultrasound could reduce fetal growth was published in 1993 - 3 years before the Peru study began.[2] Would women in Lima have consented to join the study if they had known that? Finally the title of the study (see below) - which is what many readers will simply glance at without studying the whole article - claims that zinc works and benefits the fetus. The main text, when you read it, is rightly much more cautious.

Reference

1. Merialid M et al. Am JK, Adding zinc to prenatal iron and folate tablets improves fetal neurobehavioral development, Ob Gyn, 1999; 180: 483-90
2. Newnham, J et al, Effects of frequent ultrasound during pregnancy: a randomised controlled trial, Lancet, 1993; 342: 821-7