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Medications for generalised itching (not caused by a disease affecting the whole body or changes in the skin (lesions) during pregnancy

Multiple micronutrient supplementation for breastfeeding women for improving outcomes for the mother and her baby

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Giving melatonin to women in pregnancy to protect the baby's brain and improve long-term outcomes for the baby

Medications for generalised itching (not caused by a disease affecting the whole body or changes in the skin (lesions) during pregnancy

Authors: Rungsiprakarn P, Laopaiboon M, Sangkomkamhang US, Lumbiganon P

Itching, or an unpleasant sensation that provokes a desire to scratch, is one of the most common skin problems in pregnant women. It can be caused by skin diseases, diseases affecting the whole body, or simply by having dry skin, known as generalised itching. The growing uterus also stretches the skin around the belly and the skin containing oil glands which keep it moist are not able to meet the moisture requirement, leading to dry skin. For the pregnant woman, having itchy skin can add anxiety, frustration and lead to poor sleep and exhaustion. She may also cause skin damage from scratching.

We searched the medical literature for trials (28 January 2016) to determine the effectiveness of medications and any adverse effects of the medications used for the treatment of itching. Unfortunately, we found no evidence from randomised controlled trials to assess whether medications applied directly to the skin (topically) or taken systemically for generalised itching in pregnancy are effective or safe.

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High-quality randomised controlled trials assessing medications for generalised itching (not caused by a disease affecting the whole body or changes in the skin (lesions) in pregnant women are needed. Such studies should consider important outcomes such as relief of itching, women's satisfaction, sleep disturbance and adverse effects of the interventions.

Multiple micronutrient supplementation for breastfeeding women for improving outcomes for the mother and her baby

Authors: Abe SK, Balogun OO, Ota E, Takahashi K, Mori R

The benefits and risks of multiple-micronutrient supplementation during lactation are not clear from randomised controlled studies. Key vitamins and minerals, particularly iodine, iron and zinc, are required in small amounts to ensure normal body metabolism, physical growth and development. Nutrient deficiency affects nearly one third of the world's population, especially in low- and middle-income countries. Breastfeeding mothers need higher levels than usual in order to provide sufficient vitamins and minerals for their own health and that of their babies, particularly for normal functioning and the growth and development of the baby.

Previous studies have assessed supplementation of individual micronutrients. This review looked at the use of multiple-micronutrient supplements for breastfeeding women for improving outcomes for the mother and her baby. We searched for studies on 30 September 2015 and identified two small studies (involving 52 women) for inclusion in this review. The studies were carried out in Brazil and the USA and included women who had a low socioeconomic status. The studies were poorly reported and this lack of information made it difficult to determine whether the studies were at risk of bias. Neither of the studies provided data for any of this review's important outcomes: maternal illness (fever, respiratory infection, diarrhoea), adverse effects of micronutrients within three days of taking them, infant death (defined as a child dying before reaching one year of age).

Similarly, there were no data for any of the other outcomes that we were interested in. For the mother, these outcomes were maternal anaemia, and women's satisfaction. For the baby, these outcomes were micronutrient deficiency; illness episodes (fever, respiratory infection, diarrhoea, other), adverse effects of micronutrients within three days of the woman receiving the supplement. However, one of the included studies reported that multiple-micronutrient supplementation was effective for lactating women recuperating from anaemia.

There is a need for high-quality studies to assess the effectiveness and safety of multiple-micronutrient supplementation for breastfeeding women for improving outcomes for the mother and her baby. Larger studies with longer-term follow-up would improve the quality of studies and provide stronger evidence. Further research should focus on whether multiple-micronutrient supplementation during lactation (compared with no supplementation, a placebo or supplementation with fewer than two micronutrients) is beneficial to the mother and her baby and any associated adverse effects of the intervention. Further studies should report on important outcomes such as those listed in this review and consider the risks of excess supplementation. Future studies could more precisely assess a variety of multiple-micronutrient combinations and different dosages and look at how these effect outcomes for the mother and her baby.

Vitamin A supplementation for postpartum women

Authors: Oliveira JM, Allert R, East CE

What is the issue?

Breastfeeding is expected to provide for the infant's needs in the early months of life. However, if the mother is undernourished herself, the infant may not receive all the nutrients they need. Vitamin A is important for immunity and helping the infant stay healthy, so if the mother does not have enough vitamin A intake in her diet, the infant may also not receive enough in the breast milk.

Why is this important?

In areas where vitamin A deficiency is a public health concern, the maternal dietary intake of vitamin A may be not sufficient to meet either the maternal nutritional requirements, or those of the breastfed infant, due the low concentrations in breast milk. Many studies have been carried out to address this concern in countries where vitamin A deficiency is common.

What evidence did we find?

We reviewed 14 trials. The evidence in general was found was to be of low quality. These studies involved the mothers being given vitamin A or not, within the first six weeks after giving birth, or compared a high dose of vitamin A with a low dose. Our review looked at the overall health of the mothers and their infants, any adverse effects and the levels of retinol, which is a by-product of vitamin A, in the mother's breast milk. There was no change in how many mothers or babies died or were unwell. The mothers and their babies did not experience adverse effects. There was evidence of improved amounts of retinol in breast milk.

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In summary, although extra vitamin A given to the mother may slightly improve the amount of this nutrient in her breast milk, it probably makes little or no difference to deaths in the mother or baby. It may lead to little or no difference in any adverse effects to the mother or baby.

Giving melatonin to women in pregnancy to protect the baby's brain and improve long-term outcomes for the baby

Authors: Wilkinson D, Shepherd E, Wallace EM

What is the issue?

As a baby's brain develops during pregnancy, it is susceptible to damage. A number of factors can increase the risk of injury to the developing brain of both preterm (before 37 weeks of pregnancy) and term (after 37 weeks of pregnancy) babies. This injury can lead to death of the baby, or if the baby survives, to life-long health problems, such as hearing, sight and speech disorders; seizures; intellectual disabilities; and motor impairments, including cerebral palsy, which is the most common physical disability in childhood. Being born preterm, small-for-gestational age, or low birthweight; abnormalities of the mother's placenta (the organ that connects the developing fetus to the uterine wall); uterine infection; and birth asphyxia, caused by a lack of oxygen to the baby that lasts long enough to cause harm, can increase the risk of brain injury and cerebral palsy with associated impairments or disabilities.

Melatonin is a small hormone that is usually made by the pineal gland (a small gland in the brain) during the night. It helps to regulate the sleep-wake cycle, is an antioxidant (that protect cells from the damage caused by free radicals), and interacts with the immune system (the structures and processes in the body that protect against disease).

Why is this important?

It is possible that melatonin, given to a mother in pregnancy, can help protect her baby's brain. Animal studies, including in mice, rats and sheep, have suggested that melatonin may be able to protect the developing human baby's brain from injury when given to the mother during pregnancy.

What evidence did we find?

We did not find any completed randomised controlled trials that assessed melatonin given to the mother during pregnancy to help protect the baby's brain. One ongoing trial (planning to include 60 women) was identified. This trial is designed to determine what dose of melatonin can reduce brain injury for babies when given to their mothers before very preterm birth (before 28 weeks of pregnancy).

What does this mean?

Further studies are needed to establish whether melatonin given to the mother in pregnancy can protect the baby's brain against brain injury. The babies in these trials need to be followed up over a long period so that we can monitor the effects of melatonin on childhood development, including impairments or disabilities such as cerebral palsy.

If you have any questions or comments with regard to the above document please feel free to contact me.

Kind regards

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