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Massage, reflexology and other manual methods for managing pain in labour

Relaxation techniques for pain management in labour

Antidepressant medication for preventing postnatal depression

Which drug is best for reducing excessive blood loss after birth?

Massage, reflexology and other manual methods for managing pain in labour

Authors: Smith CA, Levett KM, Collins CT, Dahlen HG, Ee CC, Suganuma M

What is the issue?

This Cochrane review looked at whether massage, reflexology and other manual therapies would help with reducing pain and improve women's experiences of childbirth. We collected and analysed all the relevant trials to answer this question (search date: 30 June 2017).

Why is this important?

The pain of labour can be intense, with tension, anxiety and fear making it worse. Many women would like to labour without using drugs such as narcotics or epidurals, and are interested in complementary therapies to help them manage the pain of labour.

In this review we have looked to see if massage, reflexology and other manual methods are effective. Other complementary therapies like acupuncture, mind-body techniques, hypnosis and aromatherapy have been studied in other Cochrane reviews. Massage involves manipulating the body's soft tissues and it can be done by the midwife or partner. It helps women relax and so reduces tension which in turn may reduce pain in labour. Reflexology is gentle manipulation or pressing on certain parts of the foot to produce an effect elsewhere in the body. Other manual methods include warm packs, osteopathy, shiatsu and zero balancing. It is important to examine if these therapies work and are safe, to enable women to make informed decisions about their care.

What evidence did we find?

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This updated review now includes 14 trials. We were able to use data from 10 of the trials, involving a total of 1055 women. We found no trials on reflexology, osteopathy, shiatsu and zero balancing therapy.

In the various included trials, massage was given either by the woman's birth companion, a student midwife, a physiotherapist or a massage therapist (though some trials did not report who gave the massage). Three trials involved a two- to three-hour prebirth course attended by women and their partners, and delivered by a qualified practitioner. In three trials, the intervention was delivered by a qualified health practitioner (massage therapist, physiotherapist or nurse/researcher with unspecified qualifications). In one trial, nurses taught women's partners in the labour ward. There was insufficient reporting of the qualifications of the practitioner teaching massage.

We found that massage and thermal packs, in comparison to usual care or music, may help women manage labour pain intensity during the first stage when the cervix is dilating. However, the quality of this evidence was very low. The effects of massage on assisted vaginal birth, caesarean section rate, the length of labour and use of drugs for pain relief were less clear, and the quality of the evidence was also very low. Two small trials showed increased satisfaction with childbirth, and a greater sense of control for women receiving massage. Warm packs were associated with reduced pain in the first stage of labour and reduced length of labour (very low-quality evidence).

What does this mean?

Massage may help women cope with pain in labour and may give them a better birth experience, and warm packs and thermal methods may help with pain. However, the quality of the evidence was generally low or very low, partly due to the trials being small and without sufficient numbers of women participating. These findings highlight a need for further research on this topic.

Relaxation techniques for pain management in labour

Authors: Smith CA, Levett KM, Collins CT, Armour M, Dahlen HG, Suganuma M

What is the issue?

This Cochrane Review looked at whether mind-body techniques for relaxation such as breathing techniques, visualisation, yoga or music would help with reducing pain, and improve women's experiences of labour. We collected and analysed all relevant studies to answer this question (date of search: May 2017).

Why is this important?

The pain of labour can be intense, with body tension, anxiety and fear making it worse. Many women would like to go through labour without using drugs, or invasive methods such as an epidural. These women often turn to complementary therapies to help to reduce the intensity of pain in labour and improve their experiences of labour.

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Many complementary therapies are used by women in labour, including acupuncture, mind-body techniques, massage, reflexology, herbal medicines or homoeopathy, hypnosis, music and aromatherapy. Mind-body techniques for relaxation can be widely accessible to women through the teaching of these techniques during antenatal classes. The relaxation techniques include guided imagery, progressive relaxation and breathing techniques. We also include yoga and music in this review. Other Cochrane Reviews cover hypnosis in labour, manual methods (like massage and reflexology), aromatherapy and acupuncture/acupressure. Many of these relaxation techniques are coping strategies used to reduce the experience of pain. These techniques utilise practices that aim to reduce stress and reduce the perception of pain. It is important to examine if these therapies work and are safe, to enable women to make informed decisions about their care.

What evidence did we find?

We found 15 studies involving 1731 women that contributed data to the analyses. Studies were undertaken across the world, including countries in Europe and Scandinavia, and Iran, Taiwan, Thailand, Turkey and USA. We found that relaxation techniques, yoga and music may help women manage labour pain, although the quality of the evidence varied between low and very low, and more data are needed. Also, in these trials there were variations in how these techniques were used. There was no clear evidence that these therapies had an impact on assisted vaginal or caesarean birth. There were insufficient data to say if these techniques influenced the baby's condition at birth.

What does this mean?

The use of some relaxation therapies, yoga, or music may possibly be helpful with reducing the intensity of pain, and in helping women feel more in control and satisfied with their labours. However, the wide variations in types of techniques used in these studies make it difficult to say specifically what might help women. Therefore further research studies are needed.

Antidepressant medication for preventing postnatal depression

Authors: Molyneaux E, Telesia LA, Henshaw C, Boath E, Bradley E, Howard LM

Review question

We examined the evidence to see whether antidepressants can prevent women from experiencing depression in the postnatal period, when compared with any other treatment, sham treatment (placebo), or standard clinical care. The studies we identified included only women who had previously experienced postnatal depression, and had a higher risk of experiencing postnatal depression again.

Background

Postnatal depression is a common condition. Approximately 10 to 15 of every 100 women experience elevated symptoms of depression in the period after giving birth, and 5 in every 100 women will experience a depressive

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disorder. Symptoms of depression include low mood, loss of pleasure, and feelings of guilt or worthlessness. Postnatal depression has an impact on the mother, and may have a negative impact on the well-being of the infant and wider family.

Women with a history of depression — and particularly women who have previously experienced postnatal depression — have a higher risk of postnatal depression. Pregnant women who are not depressed, but are at high risk of developing postnatal depression, may want to consider taking measures to try to prevent depression developing in the postnatal period.

We examined whether taking antidepressants during pregnancy or after giving birth can prevent women from developing postnatal depression.

Study characteristics

We identified two small, relevant trials. All the women in these trials had a history of postnatal depression, but were not depressed or using antidepressants at the beginning of the studies. Both studies compared antidepressant medicine with placebo. Women started taking the medicine or placebo on the first day after giving birth.

In the larger study (56 women), the antidepressant given to women was nortriptyline, which is a tricyclic antidepressant. In the other study (25 women), the antidepressant used was sertraline which is a selective serotonin reuptake inhibitor (SSRI); these types of antidepressants work in different ways. The women and the researchers assessing the outcomes in both studies did not know which women were taking antidepressants and which placebo (i.e. both studies were 'double-blind'). Both studies were funded by the National Institute of Mental Health (NIMH), a US government organisation.

Key results

There was no evidence that nortriptyline prevented postnatal depression. During the 17-week treatment period, 6 of the 26 women taking nortriptyline experienced postnatal depression compared with 6 of the 25 women taking placebo. One woman taking nortriptyline developed mania (a state of abnormally high arousal and energy level), and constipation was more common among women taking nortriptyline, but other unwanted, or harmful, effects did not differ between groups.

In the sertraline study, 1 of the 14 women taking sertraline developed postnatal depression compared with 4 of the 8 women taking placebo (during the 17-week treatment period). This study was very small, so we can't be sure whether the difference between sertraline and placebo is due to chance, or whether sertraline does prevent postnatal depression among women with a history of postnatal depression. One woman taking sertraline experienced a hypomanic episode (a state like mania but less severe); and dizziness and drowsiness were more common among women taking sertraline than women taking placebo.

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Quality of the evidence

This evidence is current to February 2018.

We could only identify two relevant studies, which had small numbers of participants and inconsistent findings, and were conducted by the same research group. Therefore we consider the quality of evidence in this review to be very low. Further studies with larger samples are needed before we can know whether antidepressants can prevent postnatal depression.

It is worth noting that no new relevant trials have been completed in the 10 years since we last examined this evidence. It may be useful for future medical studies to investigate whether antidepressants can prevent depression during pregnancy as well as during the postnatal period; and whether women who continue to take antidepressants during pregnancy (compared with stopping medication) are less likely to have a relapse of depression at this time.

We also need studies which have longer follow-up periods; examine outcomes and side effects for both the mother and fetus or breastfeeding infant; and compare antidepressants with other preventative interventions (such as psychological therapies).

Which drug is best for reducing excessive blood loss after birth?

Authors: Gallos ID, Williams HM, Price MJ, Merriel A, Gee H, Lissauer D, Moorthy V, Tobias A, Deeks JJ, Widmer M, Tunçalp Ö, Gülmezoglu A, Hofmeyr G, Coomarasamy A

What is the issue?

The aim of this Cochrane review was to find out which drug is most effective in preventing excessive blood loss at childbirth and has the least side-effects. We collected and analysed all the relevant studies to answer this question.

Why is this important?

Bleeding after birth is the most common reason why mothers die in childbirth worldwide. Although most healthy women can cope well with some bleeding at childbirth, others do not, and this can pose a serious risk to their health and even life. To reduce excessive bleeding at childbirth, the routine administration of a drug to contract the uterus (uterotonic) has become standard practice across the world. The aim of this research was to identify which drug is most effective in preventing excessive bleeding after childbirth with the least side-effects.

Different drugs given routinely at childbirth have been used for preventing excessive bleeding. They include oxytocin, misoprostol, ergometrine, carbetocin, and combinations of these drugs, each with different effectiveness and side-effects. Some of the side-effects identified include: vomiting, high blood pressure and

fever. We analysed all the available evidence to compare all of these drugs and calculated a ranking among them, providing robust effectiveness and side-effect profiles for each drug.

What evidence did we find?

We searched for evidence in June 2015 and found 140 studies involving a total of 88,947 women. The results suggest that an ergometrine plus oxytocin combination, carbetocin, and a misoprostol plus oxytocin combination are the most effective drugs for preventing excessive bleeding after childbirth and are more effective than the drug oxytocin currently recommended by the World Health Organization (WHO). However, ergometrine plus oxytocin and misoprostol plus oxytocin were the worst drugs for side-effects, with carbetocin having the most favourable side-effect profile (less vomiting, high blood pressure and fever). More effective drugs could probably prevent one out of three women from bleeding excessively after childbirth compared to oxytocin. However, existing carbetocin studies were small and of poor quality.

What does this mean?

We found that ergometrine plus oxytocin, misoprostol plus oxytocin, and carbetocin were more effective drugs for reducing excessive bleeding at childbirth than oxytocin which is the current standard drug used to prevent this condition. Carbetocin has the least side-effects among the top three drug options, but to date studies of carbetocin were small and of poor quality.

There are some ongoing studies that are not yet complete, including two key studies. One is a large study (involving around 30,000 women across 10 different countries) comparing the effectiveness of carbetocin versus oxytocin for preventing PPH among women having a vaginal birth. The other is a UK-based trial (involving more than 6000 women) comparing carbetocin, oxytocin and ergometrine plus oxytocin combination. Both trials are expected to report in 2018 and these results will be incorporated when this review is updated.

Consultation with our consumer group has demonstrated a need for more research into PPH outcomes identified as priorities for women and their families, such as women's views regarding the drugs used, clinical signs of excessive blood loss, neonatal unit admissions and breastfeeding at discharge. Trials to date have rarely investigated these outcomes. Consumers also considered the side-effects of uterotonic drugs to be important and these were often not reported. A set of standardised PPH outcomes are being developed and will be incorporated in future updates of this review. We would hope that future trials would also consider adopting those outcomes. Finally, future systematic reviews could compare the effects of different doses and ways of administering the most effective drugs.

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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