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Postdates pregnancy and complementary therapies

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A B S T R A C T

This paper explores the contribution of self-help techniques and complementary therapies within the management of postdates pregnancy. The most common reason for induction of labour is postdates pregnancy and not as one would imagine, associated with complex cases that would result in fetal or maternal morbidity without timely intervention. As such this adds to the rising concerns of many health care professionals who question the needless intervention of uncomplicated pregnancies, whilst also detracting from keeping labour and birth normal. Induction of labour is not without its risks and may well contribute to iatrogenic complications when used more widely and in normal, unwarranted cases. As in other procedures or treatments used within conventional medicine for complex/abnormal cases, there is a tendency for them to be incorporated as routine practice. In contrast there also needs to be a change in society's expectations of 'the expected date' and 'being overdue' so that it is not viewed as abnormal. The role of self-help techniques and the safe use of complementary therapies is critically explored within a model of enhancing hormonal activity and reduction of stress hormones during the postdates period, in conjunction with a more conservative approach of care for uncomplicated postdates pregnancy.

1. Introduction

The use of CTs within health care settings has steadily risen over the past decade as a result of patient usage and demand. Within maternity care there has probably been the steepest rise of all sectors, as women increasingly look towards natural, non-invasive measures to enhance their pregnancy experience and to achieve a low key labour and birth. This paper explores the role of CTs during the postdates period, focusing on the expectations of women and their carers and the inclusion of CTs within the context of traditional management of postdates pregnancy (pdp).

Currently the most common reason for induction of labour (IOL) is simply pdp, rather than for underlying medical or obstetric reasons such as: pre-eclampsia, diabetes, fetal well-being.[14,48] Consequently, there is some concern amongst health care professionals (hcps) of the value of routine invasive procedures such as IOL, undertaken for so many women – approximately 20%,[11] in the absence of complications and an uneventful pregnancy.[3,60]

There remains much debate at which stage to intervene with pdp, policies vary from routine induction at 40 weeks to conservative management until 42 weeks. Research suggests that there appears to be an increase in abnormal fetal outcomes when induction is delayed beyond 42 weeks,[37] providing that the dates are indeed correct. Conversely, some authors have highlighted that many IOL are done needlessly and a large proportion of babies born show no signs of postmaturity.[43] This also highlights that calculating the expected date of delivery and ways of determining pdp is arbitrary and unreliable.[14] Much reliance is put on ultrasound scan dating, experience clearly indicates that the early dating scan is more accurate – even so there may be a discrepancy of up to five days. More recently the practice of Doppler surveillance has been questioned, as historically, placental deterioration was attributed to fetal complications. However, this may simply be a maturational feature as the placenta continues to grow beyond term and placental insufficiency would have existed from an earlier gestation.[44] Doppler surveillance may therefore be more appropriate for high-risk cases only. The way in which pdp is 'managed' in complex pregnancies, warranting medical intervention has also become routine for uncomplicated pregnancies without due regard to the continuum of 'normality'.

Normal term pregnancy is considered to be between 37 and 42 weeks, which relates more to the maturity of the fetus to cope with external life than perhaps a gauge for inducing labour. Not only is it crucial to take an accurate personal and obstetric history but equally to reiterate to women that even with advanced technology prediction of a birth date is not an exact science. There needs to be a change in society's expectations towards the 'expected date' and to move away from focusing on a precise day when the baby will be born and then it is a downward spiral. Conversely, women should

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understand that in most cases the fetus is best kept in utero until ready to make an appearance rather than the other way around, so that being 'overdue' is not viewed as an abnormal phenomenon. The onset of labour is part of a normal physiological process and will happen spontaneously where pregnancy has followed an uncomplicated course. Odent[39] likens this physiological process to fruit ripening on a tree – they do not all ripen at the same time and even then they are harvested selectively.

It is well documented that IOL is not without its risks: hyper-stimulation of the uterine muscles; risk of haemorrhage; intra-uterine infection; fetal hypoxia; increased incidence of intervention and instrumental delivery are more likely.[31] Routine sweeping of the membranes (RSM), is now regularly undertaken as a low risk procedure for uncomplicated pregnancies. There appears to be a significant increase in spontaneous onset of labour and no apparent complications, but it remains questionable whether there is any real clinical benefit to this procedure.[1] Although RSM is considered preferable to more formal induction procedures, it is nevertheless invasive and uncomfortable and there may be other less invasive techniques such as complementary therapies (CTs) which could prove to be beneficial and supportive for pdp.

CTs and self-help techniques have occasionally been used for cervical ripening to avoid unnecessary intervention and keep birth normal. However, most do not have enough rigorous research to prove their efficacy, but anecdotal evidence suggests that some CTs may contribute to preventing postdates pregnancy and should be considered in the overall options for women. Mostly self-help techniques require time and commitment from women and may take several days to produce results, consequently this may detract from some women using them in the long term.[2] However, regular aromatherapy, massage and yoga during the latter weeks of pregnancy and term onwards may well instigate a relaxed mother, allowing the natural rise of oxytocin and reduction of stress hormones resulting in more likelihood of spontaneous onset of labour.[6,19,33]

2. Self-help techniques

Self-help techniques such as castor oil, sexual intercourse, exercise and hot baths have all been claimed to help initiate uterine activity or cervical ripening. However, research suggests that these methods are not as successful as conventional methods for inducing labour. Castor oil is more likely to make women feel nauseous and have a purgative effect rather than stimulating uterine contractions.[28] Although sexual intercourse is said to produce local prostaglandins, again research is unconvincing in proving any positive outcomes for initiating labour.[26]

A review of six studies relating to nipple stimulation to produce prostaglandins for cervical ripening and initiation of contractions appears to have some benefit: the breast stimulation group significantly reduced the number of women not progressing into labour compared with the non-intervention group.[27] This requires commitment from women and their partners and may become an arduous task to get the desired result. Early studies indicated that there may be a risk of hypertonia if done over a prolonged period of time, but a recent Cochrane review update found no evidence of hyper-stimulation of uterine muscle.[27] Monitoring nipple stimulation for IOL has been recommended by some authors,[47] obviously this could result in a counter-productive effect, so should be undertaken discreetly by attending carers.

3. Herbal remedies

Raspberry leaf (RL) (*Rubus idaeus*) has a long history as a uterine tonic, studies indicate that some of the chemical components act directly on smooth muscle which would account for this claim.[45] Parsons et al.[40] advocate that RL prevents postdates pregnancy; reduces the incidence of artificial rupture of membranes and instrumental delivery, but further research is required to consolidate these findings. However, there does not appear to be any detrimental effects from taking RL from 30 to 32 weeks,[49] the preferred method is as a tea – tablets are also available. Arguably, the prophylactic use of RL may be viewed as an intervention in itself, certainly it is questionable whether mulitiparous women who have had previous normal labours require RL. RL should not be taken if there is history of a previous uterine scar; previous precipitate or pre-term labour; significant medical or obstetric conditions such as placenta praevia or if an elective Caesarean section is necessary.[56] As with most herbal remedies caution should be taken when combining with some prescribed drugs such as metformin; antidepressants; codeine; aminophylline; ephedrine and atropine.[20,35] RL should be reduced or discontinued if women experience strong Braxton Hicks contractions.[56]

The herbal remedy Blue Cohosh (*Caulophyllum thalictroides*) also has a long tradition of use as a uterine tonic. However, there have been some reported adverse neonatal effects, such as fetal hypoxia, myocardial infarction and congestive cardiac failure,[13] consequently medical herbalists in the UK are now refraining from using Black Cohosh.[32]

Evening Primrose, commonly used for menstrual irregularities and PMT has been popularized in America for cervical ripening, but there seems to be no convincing evidence for its efficacy and to the contrary there is some evidence to suggest an increased incidence of prolonged rupture of membranes and need for intravenous oxytocin.[12]

Bromelain, a substance found in fresh pineapple is thought to relax smooth muscle, most commonly used for conditions such as ulcerative colitis.[25] Conversely it has also been purported to be effective for stimulating smooth muscle to induce labour, however more recent studies suggest that Bromelain reduces levels of cervical prostaglandins rather than have any effect on initiating labour.[21] Furthermore, a huge amount of fresh pineapple would need to be consumed to achieve a therapeutic effect and would more likely cause diarrhoea than stimulate contractions. Bromelain containing plants (mango and papaya) or supplements should be avoided when taking anti-coagulants or herbs with anti-coagulant properties and one should be aware that there may be interactions with amoxicillin and tetracycline.[8]

4. Homoeopathic remedies

Homoeopathic remedies (HR) have potential to provide alternative measures for managing uncomplicated pdp. HR do not work in a chemical capacity, this therefore makes them relatively safe to use in conjunction with pharmacological based medicines. However, there is still much dissent about the value and effectiveness of HR, debate is based on a direct comparison between traditional medicine and homoeopathy when in fact they have divergent scientific and philosophical origins. Further research is required to establish homoeopathy's effectiveness[50] and whether it could be used as an alternative to oxytocin or prostin for IOL.[30] When prepared homoeopathically Caulopyhllum is regarded as safe as there are no active chemical ingredients to cause morbidity compared to the herbal use of the plant (as mentioned earlier). However, for optimum effect it is best reserved for late pregnancy/postterm, as long-term prophylactic use of homoeopathic remedies may cause the symptoms they propose to treat to be reversed e.g. cause pre-term labour or hypertonia.

HR are selected by matching the remedy profile as closely as possible to the presenting physiological and emotional symptoms