Prebirth acupuncture

Prebirth acupuncture has an interesting history with several studies examining the effect of acupuncture used prior to labour.

Summary

Research on the use of acupuncture to prepare women for labour first appeared in 1974 with a study by Kubista and Kucera [8]. Their research concluded that acupuncture once a week from 37 weeks gestation using the acupuncture points **Zusanli ST-36, Yanglingquan GB-34, Jiaoxin KID-8, and Shenmai BL-62** was successful in reducing the mean labour time of the women treated.

They calculated the labour time in two ways, the first being as being the time between a cervical dilation of 3-4 cm and the delivery time. In the acupuncture group the labour time was 4 hours and 57 minutes (control group 5 hours and 54 minutes). The second as the mean subjective time of labour, taken from the onset of regular 10 – 15 minute contractions until delivery, the acupuncture group had a labour time of 6 hours and 36 minutes (control 8 hours and 2 minutes).

In 1987 Lyrendas et all [9] basing its study on the work of Kubista and Kucera contradicted their research, concluding that acupuncture lengthened the delivery time. They calculated the average lengths of the latent and active phase and the second stage of labour. In their study the acupuncture group had a total mean delivery time, calculated as time of admission to the delivery ward until delivery, as 8 hours and 30 minutes (control group time of 7 hours and 40 minutes).

In 1998 Tempfer [10] used the acupuncture points **Bai Hui DU-20 , Shen Men HT-7, and Nei Guan PC -6** from 36 weeks gestation. This study concluded that acupuncture treatment had positive effect on the duration of labour by shortening the first stage of labour, defined as the time interval between 3 cm cervical dilatation and complete dilation. The acupuncture group had a median duration of 196 minutes compared to the control group time of 321 minutes, (acupuncture group 3 hours and 26 minutes compared to the control group 5 hours and 35 minutes).

In contrasting these studies the following points should be noted;

Group numbers. In order to obtain accurate statistical comparisons it is seen as ideal to have the number of women in the acupuncture group and control group as evenly matched as possible. While this happened in the studies by Kubista and Kucera (70 women in the acupuncture group 70 women in the control group) and Tempfer (57 women in the acupuncture group and 63 women in control group) Lyrendas et all had 56 woman in the acupuncture group and 112 woman acting as a control group.

Measurement of labour time It can be difficult to accurately define the beginning of labour as often this is a subjective measurement on the intensity or timing of

contractions from the woman's judgement, which will naturally vary according to different woman's perception of pain and expectations of labour. Even if labour is medically defined as being a measurement involving cervical dilatation, women can vary considerably in their presentation of early labour. For example in the study by Tempfer twenty-seven women were excluded as they presented for admission to the delivery unit with more than 3 cm of cervical dilatation.

Despite these difficulties an attempt was made in each study to measure the length of labour from different starting points. It is worth noting that Lyrendas et all used the most subjective, and therefore, least accurate method by taking the beginning of labour as the time that women presented in delivery suite. It is also worth noting that different statistics were used, Kubista and Kucera and Lyrendas et all used a mean labour time while Tempfer used a median labour time. The median labour time is considered to a more useful measurement when measuring data such as length of time women spend in labour. This is because the median will give a more accurate value when used for a wide variation in the data being collected were as the mean is more suitable for data that falls into a bell curve distribution. The problem with the mean being used is that the results can become extremely distorted by just one or two values at either end of the data being collected.

Additional requirements for participating in the study As a requirement for being in the acupuncture group in the Lyrendas et study women were required to consent to having two lumbar punctures, one at 38 weeks gestation and another six months after delivery. Having to consent to such an invasive medical procedure would have certainly influenced the range of women who agreed to receive acupuncture. It is interesting that in this study there was a control group of 16 women who received a lumbar puncture (but did not receive acupuncture) they had the longest mean labour time of 9 hours and 30 minutes (acupuncture group 8 hours and 30 minutes).

Conclusion

Although the research by Lyrendas et all appears to contradict the findings of both Kubista and Kucera and Tempfer the full paper by Lyrendas et all contains interesting details. A control group with twice the number of women in it from the acupuncture group, taking the most subjective time for onset of labour as presentation to delivery suite and a recruiting process that asks women in the acupuncture group to have an invasive medical procedure such as a lumber puncture raises concerns that this study may not be an accurate representation of the benefits of prebirth acupuncture.

Treatment method

Kubista and Kucera. The acupuncture points **Zusanli ST-36, Yanglingquan GB-34, Jiaoxin KID-8, and Shenmai BL-62** were used weekly on primigravidea women from 37 weeks until delivery.

The reasoning given for choosing these acupuncture points was that as a group they would relax the women, tonify qi and improve circulation of blood to the pelvis. The points were used bilaterally, with an even method with de qi being obtained and the needles retained for 20 minutes. The women were treated in sitting position and had on average three treatments.

Lyrendas et all. Despite stating in their study that the acupuncture points used were the same as those used in the Kubista and Kucera study **Sanyinjiao SP 6** was substituted for **Jiaoxin KI 8.** No reason was given. Zusanli ST-36 and Sanyinjiao SP 6 were used to improve the circulation of the pelvic organs. Yanglingquan GB-34 was used as an influential point for muscles and tendons. Shenmai BL-62 was used as a tranquilizing point

They also used a different acupuncture method from the Kubista and Kucera study. While the women received bilateral acupuncture with an even method and de qi was obtained, the difference was that the women were treated lying on their sides. As the total treatment time was 30 minutes, each woman would have only received acupuncture for 10 to 15 minutes at each point.

The prebirth acupuncture was commenced at 36 weeks and women had on average five acupuncture treatments

Tempfer. The acupuncture points Bai Hui DU-20 , Shen Men HT-7, and Nei Guan PC-6 were used. No reason was given why these points were chosen. Bilateral application was used with the needles stimulated until de qi was obtained.

Treatment was given with the women in a resting position with each session lasting 20 minutes. A minimum of 4 sessions was recommended.

Clinical Perspective

In terms of how many pre birth treatments are considered effective Kubista and Kucera found no effect on the duration of delivery time in woman who only received acupuncture for one treatment and Tempfer ensured that women received at least four treatments (twelve women were excluded from the Tempfer study because they received less than 4 treatments).

In terms of possible side effects from receiving acupuncture Tempfer found that there was an increased frequency of premature rupture of membranes in the acupuncture treatment group. They did not consider this a negative factor as they associated this with an acceleration of the cervix maturing.

From a safety perspective there was no association with an elevated rate of complications for mother or the fetus in those women receiving acupuncture in any of the studies.

In 2004, I was involved in an observational study looking at the effect of prebirth acupuncture together with Sue Lennox, a midwife [11]. 169 women who received

prebirth acupuncture were compared to local population rates for gestation at onset of labour, incidence of medical induction, length of labour, use of analgesia and type of delivery.

In the acupuncture group comparing all caregivers (including midwives, GP's and specialists) there was an overall 35% reduction in the number of inductions (for women having their first baby this was a 43% reduction) and a 31% reduction in the epidural rate. When comparing midwifery only care there was a 32% reduction in emergency caesarean delivery and a 9 % increase in normal vaginal births.

There was no statistical difference in the onset of early labour in those women receiving prebirth acupuncture.

Although this was a small naturalistic observation study rather than a randomised controlled study it does reflect how acupuncture was used in clinical practice. It mirrors the feedback given by midwives that prebirth acupuncture provides promising therapeutic benefits in assisting women to have normal vaginal births and suggests that a further randomized controlled study is warranted.