Acupuncture techniques during caesarean section

Your readers will be aware of the serious military and political disturbances that have prevailed in Iraq in recent years and which led to severe deterioration in medical services. At the Red Crescent Hospital for Gynecology & Obstetrics in Baghdad, we suffered not only a prolonged shortage or absence of routine drugs used in anaesthesia (specifically suxamethonium, oxytocin and nitrous oxide) but also continued loss of qualified and assistant staff. Anaesthetists therefore found it necessary to use non-standard techniques for caesarean section, involving a high percentage of halothane despite its known effect of uterine relaxation.

I am writing concerning my experience of using acupuncture techniques to counteract uterine relaxation during caesarean section, and in resuscitation of the newborn. In my series of 200 women anaesthetised in the period 2004–2006, 70% were primiparous and 30% had previous uterine scars. There was an average of 60 deliveries per day at the hospital of which about 40% required caesareans. It was more usual for women to have their babies at home as this was safer, given the dangers of crossing town, so only those at significant risk came to hospital. This explains the high rate of surgical interference.

General anaesthesia was induced by preoxygenation with 0.5% halothane followed by minimal doses of all drugs: the non-depolarising muscle relaxant pancuronium (4 mg), the analgesic and dissociative anaesthetic ketamine (100–150 mg) and the barbiturate induction agent thiopentone (250 mg). Patients were intubated and ventilated. Cricoid pressure could not be given as no assistant was available; however, no cases of acid aspiration occurred. Blood pressure, pulse and oxygen saturation were monitored in the usual way. The halothane concentration was increased to 3% until after delivery when it was again reduced to 0.5%.

As soon as possible after delivery of the baby, the anaesthetist (myself) inserted acupuncture needles at SP1, SP6 and BL67 bilaterally (see table 1). Insertion was superficial at SP1 and BL67 (on the toes) and 2.5 cm deep at SP6. Manual stimulation of the needles was given for 5–10 min. These points are all easily accessible without interfering with the surgery.

<table>
<thead>
<tr>
<th>Points to counter uterine relaxation</th>
<th>Relevant traditional indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP1 (Yinbai)</td>
<td>Menorrhagia, uterine bleeding</td>
</tr>
<tr>
<td>SP6 (Sanyinjiao)</td>
<td>Uterine bleeding and prolapse</td>
</tr>
<tr>
<td>BL67 (Zhiyin)</td>
<td>Difficult labour, uterine contraction, retention of afterbirth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Points for infant resuscitation</th>
<th>Relevant traditional indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>KI1 (Yongquan)</td>
<td>Coma, respiratory failure, acute emergency</td>
</tr>
<tr>
<td>LU11 (Shaoshang)</td>
<td>Resuscitation of the newborn, coma, respiratory arrest</td>
</tr>
</tbody>
</table>

Of the 200 women given acupuncture, uterine contraction was judged by the surgeon to be satisfactory in 45% and there was thus no requirement for oxytocin, 35% required 2 units, 18% had between 2 and 5 units and 2% needed more than 5 units. Without acupuncture, it had been standard for the surgeon to ask for a minimum of 10 units of oxytocin. He would have preferred 20, but this was simply not available except in problem cases.

The advantage of the high concentration of halothane is that it potentiates non-depolarising muscle relaxants, allowing a single ampoule of pancuronium to suffice, while providing good abdominal relaxation. The disadvantage is that it causes uterine relaxation and thus increased bleeding. Oxytocin can be used to counteract this but proved largely unnecessary in my series, apparently through the action of acupuncture. We were thus able to conserve stocks of those drugs we held in short supply without ill effects on our patients.

We had no paediatrician to attend caesarean sections and only two incubators—the others had been stolen or destroyed. The anaesthetist thus had to resuscitate any baby with a low Apgar score as well as look after the mother.

I had audited the Apgar results for 100 consecutive babies born by emergency caesarean section for whom standard resuscitation techniques were used: oxygen, suction and stimulation. The results are shown in table 2.

<table>
<thead>
<tr>
<th>Apgar scores found on audit of standard resuscitation</th>
<th>% (n=100)</th>
<th>1 min</th>
<th>5 min</th>
<th>10 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>8–10</td>
<td>10</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>5–7</td>
<td>8–9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>3–4</td>
<td>5–6</td>
<td>7–8</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0–2</td>
<td>3–4</td>
<td>5–6</td>
<td></td>
</tr>
</tbody>
</table>

I had observed that midwives often flick the soles of the feet of newborn babies as stimulation to make them take a deep breath and thus improve the Apgar score. There is a single acupuncture point, KI1, in the centre of the sole which would be stimulated by this flicking. This is a Jing Well point, and thus traditionally considered as a source of vital energy (qi) and used for any acute emergency and to restore consciousness. I therefore used gentle finger pressure at this point, plus LU11 another Jing Well point beside the thumbnail (see table 1), in addition to the routine resuscitation methods, and audited the results (table 3) for a further 50 consecutive babies with moderately severe asphyxia (Apgar scores at 1 min of 3–4). Manual pressure was maintained for 1–2 min and repeated as required.

Compared to the initial audit where the 29 babies with moderately severe asphyxia achieved Apgar scores of 7–8 at 10 min following standard resuscitation, 84% (42 babies) of the acupuncture group were successfully raised to scores of 9–10. The remaining eight babies (16%) showed less improvement and required more intensive resuscitation, some with transfer to the Children’s Hospital, although this could be dangerous, especially at night.

These acupuncture techniques, born out of necessity, have proved useful in overcoming the deficiency of modern drugs and equipment in a war-torn city; but it may also be helpful to consider their use as an adjunct to standard practice in Western hospitals.

**Acknowledgements**
The author acknowledges the advice and assistance of Simon Hayhoe in the preparation of this letter.

**Competing interests**
None.

**Patient consent**
Obtained.

**Ethics approval**
This study was conducted with the approval of the Red Crescent Hospital for Gynecology & Obstetrics, Baghdad, Iraq.

**Provenance and peer review**
Not commissioned; not externally peer reviewed.
Acupuncture techniques during caesarean section

Lazgeen M Zcherky

*Acupunct Med* published online April 28, 2010

Updated information and services can be found at:
http://aim.bmj.com/content/early/2010/04/07/aim.2010.002253

**Email alerting service**

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Notes**

To request permissions go to:
http://www.bmj.com/company/products-services/rights-and-licensing/

To order reprints go to:
http://journals.bmj.com/content/subscribers

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/