

Acupuncture as part of multimodal analgesia after caesarean section

The number of caesarean sections (CS) in comparison with spontaneous deliveries is growing in most industrial countries,¹ which raises economic and medical questions. The pathophysiology of post-CS pain includes both somatic and visceral components, and may give rise to pain intensity of 7, using the Verbal Rating Scale 0–10.² Despite a variety of analgesic options, the quality of post-CS pain control is often inadequate,³ probably because of specific restrictions associated with this type of patient. Postoperative analgesia for CS needs to be effective and safe, but should not interfere with the mother's ability to care for her baby, and must be free from adverse neonatal effects in breast-feeding women. Because of these restrictions, few analgesic drugs are recommended. Thus, the choice of optimal method for postoperative analgesia after CS depends on drug availability, institutional protocols, individual preferences, available resources and financial considerations.^{1–3}

In recent decades, surgery-specific protocols of multimodal analgesia were introduced in order to improve the quality of postoperative pain relief, including parturients after CS.⁴ At our university hospital the multimodal analgesia scheme after CS comprises oral 4×1 g acetaminophen (or 3×50 mg diclofenac) daily and, if analgesia is insufficient, subcutaneous injections of 7.5 mg opioid piritramide on demand.⁵ Almost all CS procedures in our department are performed with spinal anaesthesia,

the effect of which finishes 2 h after the procedure.

My wife has had three CS in our hospital. After the first, I had to fight (though working as an anaesthetist in the hospital) for a patient-controlled-analgesia pump with piritramide. I brought some metamizole (a peripheral non-opioid analgesic like dipyrrone, which is not officially indicated for breast-feeding women) from home and performed acupuncture, though it was too late as she already had developed postoperative pain.

Two years later before my wife's second CS, I inserted 1.5 mm indwelling needles (New Pyonex, Seirin Corp), designed for auricular acupuncture into LI4 (figure 1), ST36, SP6, segmental points of the BL meridian on the same level as the CS incision, and into auricular points such as Shenmen, Lung, Uterus and Thalamus (located by skin resistance). The acupuncture points were needled bilaterally, when appropriate. The needles were left in situ 48 h after the CS procedure. My wife did not require opioids, did not experience excessive pain and was more satisfied than with the use of a patient-controlled-analgesia pump during her previous admission.

Two years later before the third CS, on her request, I performed the same procedure (acupuncture). I subsequently calculated her analgesic requirement during the whole inpatient period: 2 g acetaminophen and 1 g metamizole, but no opioids. Indeed, systemic opioids were contraindicated at this time, since 2 h after the CS the baby developed respiratory distress syndrome, requiring intermittent support with continuous positive airway pressure therapy. Because of their respiratory depressive adverse effect systemic opioids were not considered for postoperative analgesia. My wife was mobilised 4 h after the CS and discharged home on the third postoperative day.

I have given the same acupuncture treatment to one other woman—my doctoral student, who asked me to provide her with spinal anaesthesia for CS—and since I was present



Figure 1 Caesarian section in spinal anaesthesia on 16 November 2011. For postoperative analgesia, indwelling fixed acupuncture needles were inserted bilaterally at LI4 (black arrow) and at other corporal and auricular acupuncture points (not pictured, details in text).

anyway, I offered her acupuncture. She did not require opioids after her CS and was satisfied with her level of postoperative analgesia. She has asked for acupuncture again at her second delivery, due in May, if a CS is required again.

Several years ago the nurses were so impressed by results of acupuncture that they wanted to learn how to introduce it as standard care. We did obtain approval for this from the chief of obstetrics, and though we have not yet put this into practice, I intend to get it moving in the near future.

T I Usichenko

Correspondence to Dr Taras Usichenko, Anaesthesiology and Intensive Care Medicine, University Medicine of Greifswald, Fleischmannstr.

42-44, Greifswald 17475, Germany; taras@uni-greifswald.de

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