ACUPUNCTURE AND THE PUERPERIUM

About puerperium

The puerperium covers the 6-week period following birth, during which time the various physiological changes that occurred during pregnancy revert to the non-pregnant state Guzman 2010). Although for most women, the postnatal period is uncomplicated, care during this time needs to address any departures from expected recovery after birth.

Common puerperal problems include: pain in the perineal area, if the perineum has been damaged during the birth; urinary stress incontinence; painful or difficult urination; constipation; haemorrhoids; insufficient lactation, mastitis; breast abscesses; back pain; headache due to epidural/spinal anaesthesia; persistent fatigue; the ôbaby bluesô and postnatal depression (affects about 10%).

For pain in the perineum, cold compresses and analgesics may be used (NICE 2006). For urinary stress incontinence, the usual treatment is to teach and encourage pelvic floor exercises. For constipation and haemorrhoids, stool softeners may be needed. Making sure all milk is expressed is the first action with mastitis, and cold compresses may be used. If a bacterial infection is suspected, antibiotics are prescribed, while breast abscesses are treated with incision and drainage. Back pain and headache are managed in the same way as in the general population. Persistent fatigue can be the result of anaemia due to excessive blood loss, and may be treated with iron supplements or sometimes a blood transfusion. Women with the ôbaby bluesô need reassurance that it will pass quickly and is a ônormalôexperience in the first week after giving birth (SIGN 2002). Those with postnatal depression are referred to psychological therapies and possibly given antidepressants (NICE 2007).

References

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Scottish Intercollegiate Guidelines Network, 2002. Postnatal depression and puerperal psychosis, [online]. Available:

How acupuncture can help

One systematic review of various treatments for breast engorgement during lactation (Manges 2010) located one eligible and analysable acupuncture study (Kvist 2007), and found that, compared to women receiving routine care, women receiving acupuncture had greater improvements in symptoms in the days immediately following treatment. The original study authors concluded that acupuncture plus care interventions such as correction of breast feeding position and babies' attachment to the breast, might be more effective and less invasive than oxytocin nasal spray for inflammatory symptoms of the breast, however, the evidence is still very much at a preliminary stage.

In other randomised controlled trials, acupuncture and electro-acupuncture have been shown to delay the time to requesting pain relief medication after caesarean section, and to decrease the patient-controlled analgesia doses used within the first 24 hours (Wu 2009); both auricular acupressure using press seeds (Zhou 2009) and electroacupuncture (Wang 2007) have been found to have some efficacy in hypogalactia. [See Table below]

Also see other Factsheets, such as those for Acupuncture and Back Pain, Acupuncture and Migraines, Acupuncture and Anxiety, Acupuncture and Chronic Fatigue Syndrome, Acupuncture and Urinary Incontinence, Acupuncture and GI tract Disorders.

In general, acupuncture is believed to stimulate the nervous system and cause the release of neurochemical messenger molecules. The resulting biochemical changes influence the body's homeostatic mechanisms, thus promoting physical and emotional well-being. Stimulation of certain acupuncture points has been shown to affect areas of the brain that are known to reduce sensitivity to pain and stress, as well as promoting relaxation (Hui 2010)

Acupuncture may increase milk production, help relieve pain (e.g. back pain, headache, pain in the perineum), and improve mood and reduce anxiety in women who have recently given birth by:

- increasing prolactin levels (Wang 2007);
- altering the brain's chemistry (Samuels 2008), increasing endorphins (Han 2004) and neuropeptide Y levels (Lee 2009; Cheng 2009), and reducing serotonin levels (Zhou 2008);
- stimulating nerves located in muscles and other tissues, which leads to release of endorphins and other neurohumoral factors, and changes the processing of pain in the brain and spinal cord (Pomeranz 1987, Zhao 2008);
- reducing inflammation, by promoting release of vascular and immunomodulatory factors (Kavoussi 2007, Zijlstra 2003).

About traditional acupuncture

Acupuncture is a tried and tested system of traditional medicine, which has been used in China and other eastern cultures for thousands of years to restore, promote and maintain good health. Its benefits are now widely acknowledged all over the world and in the past decade traditional acupuncture has begun to feature more prominently in mainstream healthcare in the UK. In conjunction with needling, the practitioner may use

techniques such as moxibustion, cupping, massage or electro-acupuncture. They may also suggest dietary or lifestyle changes.

Traditional acupuncture takes a holistic approach to health and regards illness as a sign that the body is out of balance. The exact pattern and degree of imbalance is unique to each individual. The traditional acupuncturistôs skill lies in identifying the precise nature of the underlying disharmony and selecting the most effective treatment. The choice of acupuncture points will be specific to each patientôs needs. Traditional acupuncture can also be used as a preventive measure to strengthen the constitution and promote general well-being.

An increasing weight of evidence from Western scientific research (see overleaf) is demonstrating the effectiveness of acupuncture for treating a wide variety of conditions. From a biomedical viewpoint, acupuncture is believed to stimulate the nervous system, influencing the production of the bodyôs communication substances - hormones and neurotransmitters. The resulting biochemical changes activate the body's self-regulating homeostatic systems, stimulating its natural healing abilities and promoting physical and emotional well-being.

About the British Acupuncture Council

With over 3000 members, the British Acupuncture Council (BAcC) is the UKôs largest professional body for traditional acupuncturists. Membership of the BAcC guarantees excellence in training, safe practice and professional conduct. To find a qualified traditional acupuncturist, contact the BAcC on 020 8735 0400 or visit www.acupuncture.org.uk

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The evidence

Research	Conclusion
Systematic reviews (SRs)	
Mangesi L, Dowswell T. Treatments for breast engorgement during lactation. *Cochrane Database Syst Rev* 2010; (9): CD006946.	A systematic review, which included 8 randomised and quasi-randomised controlled trials and a total of 744 women, carried out to identify the best forms of treatment for women who experience breast engorgement. Trials examined a range of different treatments for breast engorgement: acupuncture (two studies), cabbage leaves (two studies), cold gel packs (one study), pharmacological treatments (two studies) and ultrasound (one study). There was evidence from one study that, compared with women receiving routine care, women receiving acupuncture had a faster resolution of the symptoms in the days following treatment, although there was no evidence of a difference between groups by 6 days, and the study did not have sufficient power to detect meaningful differences for other outcomes (such as breast abscess).
Randomised controlled trials	
Wu HC et al. Effects of acupuncture on post-cesarean section pain. *Chin Med J* 2009; 122: 1743-8.	A randomised controlled study that assessed the effects of acupuncture or electro-acupuncture on post-caesarean pain in 60 women, who had had spinal anaesthesia during caesarean section. The women were assigned to a control group, an acupuncture group, and an electro-acupuncture group after the operation. Patient controlled analgesia (PCA) was also used. The time to first request of morphine, the frequency of PCA demands in 24 hours, and the doses of PCA used were recorded. Both acupuncture and electro-acupuncture delayed the time to the first request of morphine by up to 10 -11 minutes compared with the control group. The total dose of PCA used within the first 24 hours was 30% - 35% less in the acupuncture and electro-acupuncture groups compared with the control group, which was statistically significant difference. However, there was no significant difference between the acupuncture and electro-acupuncture groups. The acupuncture and electro-acupuncture groups' pain scores were lower than the control group's within the first 2 hours (statistically significant). However, 2 hours later, there were no significant differences in visual analogue scale (VAS) scores between either of the treatment groups and the control group. Finally, the incidence of opioid-related side effects, such as dizziness, was less in the acupuncture and electro-acupuncture groups than in the control group. The researchers concluded that the application of acupuncture and electro-acupuncture could definitely delay the time of requesting pain relief medication after caesarean section and decrease the PCA doses used within the first 24 hours.
Zhou HY et al. Clinical observation on the treatment of post-cesarean hypogalactia by auricular points sticking-pressing. *Chin J Integr Med* 2009; 15: 117-20.	A randomised controlled trial to explore the effect of auricular acupressure using press seeds in treating post-cesarean hypogalactia in 116 patients. The women were equally assigned to the treatment group and the control group (asked to breastfeed on demand). The therapeutic efficacy and the changes in scores of the traditional Chinese medicine (TCM) syndrome, volume of milk secretion, supplementary feeding and serum level of prolactin in the two groups were estimated and compared after the patients

	had been treated for 5 days. The cured and markedly effective rate in the treatment group was 89.7%, which was significantly higher than that in the control group (27.6%, p<0.05). The improvement of TCM syndrome, elevation of milking volume, decrease of the supplementary feeding and increase of prolactin level revealed in the treatment group were all superior to those in the control group, showing statistical significance (p<0.01). The researchers concluded that auricular acupressure using press seeds seems effective for hypogalactia.
Kvist LJ et al. A randomised-controlled trial in Sweden of acupuncture and care interventions for the relief of inflammatory symptoms of the breast during lactation. *Midwifery* 2007; 23: 184-95.	A randomised controlled trial that compared acupuncture treatment and care interventions for the relief of inflammatory symptoms of the breast during lactation. A total of 205 mothers with 210 cases of inflammatory symptoms of the breast during lactation were assigned to one of three treatment groups, two of which included acupuncture among the care interventions and one without acupuncture. All groups were given essential care. Protocols, which included scales for erythema, breast tension and pain, were maintained for each day of contact with the breast feeding clinic, and a Severity Index (SI) for each mother and each day was created by combining these three scores. The range of the SI was 0 (least severe) to 19 (most severe). No significant difference was found in numbers of mothers in the treatment groups with the lowest possible score for severity of symptoms on contact days 3, 4 or 5. No statistically significant differences were found between the treatment groups for number of contact days needed until the mother felt well enough to discontinue contact with the breast feeding clinic or for number of mothers prescribed antibiotics. Significant differences were found in the mean SI scores on contact days 3 and 4 between the non-acupuncture group and the two acupuncture groups. The researchers concluded that, if acupuncture treatment is acceptable to the mother, this, together with care interventions such as correction of breast feeding position and babies' attachment to the breast, might be a more expedient and less invasive choice of treatment than the use of oxytocin nasal spray.
Wang HC et al. Multicentral randomized controlled studies on acupuncture at Shaoze (SI 1) for treatment of postpartum hypolactation. *Chinese acupuncture & moxibustion* 2007. 27: 85-8.	A randomised controlled trial that explored the effects of electroacupuncture at the specific lactation point (SI 1) for treatment of postpartum hypolactation, comparing it with another point not used for this condition (LI 1) as a control. There were 138 women in each group. After treatment of 2 courses, the therapeutic effects and changes of cumulative score of Traditional Chinese Medicine (TCM), mammary filling degree, lactation amount, and prolactin levels were evaluated. The cured and markedly effective rate was 97.8% in the treatment group and 24.3% in the control group (p<0.05). Improvement in the cumulative score of TCM symptoms, mammary filling degree, lactation amount and prolactin levels were all better in the treatment group than the control group (p<0.01). The researchers concluded that electroacupuncture at SI 1 has obvious therapeutic effects on hypolactation.
Research on mechanisms for acupuncture	
Hui KK et al. Acupuncture, the limbic system, and the anticorrelated networks of the brain. *Auton Neurosci* 2010; 157: 81-90.	A paper that discusses research showing that acupuncture mobilises the functionally anti-correlated networks of the brain to mediate its actions, and that the effect is dependent on the psychophysical response. The research used functional magnetic resonance imaging studies of healthy subjects to show that acupuncture stimulation evokes deactivation of a limbic-paralimbic-neocortical network, which encompasses the limbic system, as well as activation of somatosensory brain regions. It has also been shown that the effect of acupuncture on the brain is integrated at multiple levels, down to the brainstem and cerebellum.

Cheng CH et al. Endogenous Opiates in the Nucleus Tractus Solitarius Mediate Electroacupuncture-induced Sleep Activities in Rats. *Evid Based Complement Alternat Med* 2009 Sep 3. [Epub ahead of print]	An animal study that investigated the involvement of the nucleus tractus soliatarius opioidergic system in electroacupuncture-induced alterations in sleep, the findings of which suggested that mechanisms of sleep enhancement may be mediated, in part, by cholinergic activation, stimulation of the opiodergic neurons to increase the concentrations of beta-endorphin and the involvement of the μ-opioid receptors.
Lee B et al. Effects of acupuncture on chronic corticosterone-induced depression-like behavior and expression of neuropeptide Y in the rats. *Neuroscience Letters* 2009; 453: 151-6.	In animal studies, acupuncture has been found to significantly reduce anxiety-like behaviour, and increase brain levels of neuropeptide Y, the brain levels of which appear to correlate with reported anxiety.
Zhao ZQ. Neural mechanism underlying acupuncture analgesia. *Prog Neurobiol* 2008; 85: 355-75.	Review article that discusses the various peripheral and central nervous system components of acupuncture anaesthesia in detail.
Zhou Q et al. The effect of electro-acupuncture on the imbalance between monoamine neurotransmitters and GABA in the CNS of rats with chronic emotional stress-induced anxiety. *Int J Clin Acupunct* 2008 ;17: 79-84.	A study of the regulatory effect of electro-acupuncture on the imbalance between monoamine neurotransmitters and GABA in the central nervous system of rats with chronic emotional stress-induced anxiety. The levels of serotonin, noradrenaline and dopamine fell significantly, while GABA levels were significantly higher in the rats given acupuncture ($P<0.05$, or $P<0.0$). The researchers concluded that the anti-anxiety effect of electro-acupuncture may relate to its regulation of the imbalance of neurotransmitters.
Samuels N et al. Acupuncture for psychiatric illness: a literature review. *Behav Med* 2008; 34: 55-64.	A literature review of acupuncture for psychiatric illness, which presents research that found acupuncture to increase central nervous system hormones, including ACTH, beta-endorphins, serotonin, and noradrenaline.
Kavoussi B, Ross BE. The neuroimmune basis of anti-inflammatory acupuncture. *Integr Cancer Ther* 2007; 6: 251-7.	Review article that suggests the anti-inflammatory actions of traditional and electro-acupuncture are mediated by efferent vagus nerve activation and inflammatory macrophage deactivation.
Han JS. Acupuncture and endorphins. *Neurosci Lett* 2004; 361: 258-61.	A literature review of studies relating to the release of endorphins by acupuncture.
Zijlstra FJ et al. Anti-inflammatory actions of acupuncture. *Mediators Inflamm* 2003; 12: 59-69.	An article that suggests a hypothesis for anti-inflammatory action of acupuncture: Insertion of acupuncture needles initially stimulates production of beta-endorphins, CGRP and substance P, leading to further stimulation of cytokines and NO. While high levels of CGRP have been shown to be pro-inflammatory, CGRP in low concentrations exerts potent anti-inflammatory actions. Therefore, a frequently applied 'low-dose' treatment of acupuncture could provoke a sustained release of CGRP with anti-inflammatory activity, without stimulation of pro-inflammatory cells.
Pomeranz B. Scientific basis of acupuncture. In: Stux G, Pomeranz B, eds. Acupuncture Textbook and Atlas. Heidelberg: Springer-Verlag; 1987: 1-18.	Needle activation of A delta and C afferent nerve fibres in muscle sends signals to the spinal cord, where dynorphin and enkephalins are released. Afferent pathways continue to the midbrain, triggering excitatory and inhibitory mediators in spinal cord. Ensuing release of serotonin and norepinephrine onto the spinal cord leads to pain transmission being inhibited both pre- and postsynaptically in the spinothalamic tract. Finally, these signals reach the hypothalamus and pituitary, triggering release of adrenocorticotropic hormones and beta-endorphin.

Terms and conditions

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