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Abstracts

The Magpie Trial: a randomized trial comparing Magnesium sulphate with placebo for pre-eclampsia. Outcome for women at 2 years

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BJOG 2007; 114:300-309

Objective: The aim of this study was to assess long-term effects for women following the use of magnesium sulphate for pre-eclampsia.

Design: Assessment at 2–3 years after delivery for women recruited to the Magpie Trial (recruitment in 1998–2001, ISRCTN 86938761), which compared magnesium sulphate with placebo for pre-eclampsia.

Setting: Follow up after discharge from hospital at 125 centres in 19 countries across five continents.

Population: A total of 7927 women were randomised at the follow-up centres. Of these women, 2544 were not included for logistic reasons and 601 excluded (109 at a centre where <20% of women were contacted, 466 discharged without a surviving child and 26 opted out). Therefore, 4782 women were selected for follow-up, of whom 3375 (71%) were traced.

Methods: Questionnaire assessment was administered largely by post or in a dedicated clinic. Interview assessment of selected women was performed.

Main outcome measures: Death or serious morbidity potentially related to pre-eclampsia at follow up, other morbidity and use of health service resources.

Results: Median time from delivery to follow up was 26 months (interquartile range 19–36). Fifty-eight of 1650 (3.5%) women allocated magnesium sulphate died or had serious morbidity potentially related to pre-eclampsia compared with 72 of 1725 (4.2%) women allocated placebo (relative risk 0.84, 95% CI 0.60–1.18).

Conclusions: The reduction in the risk of eclampsia following prophylaxis with magnesium sulphate was not associated with an excess of death or disability for the women after 2 years.

Early amniotomy and early oxytocin for prevention of, or therapy for, delay in first stage spontaneous labour compared with routine care

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U.S. National Library of Medicine, Cochrane Database Syst Rew. 2009 Apr 15:(2): CD006794

Background: Caesarean section rates are over 20% in many developed countries. The main diagnosis contributing to the high rate in nulliparae is dystocia or prolonged labour. The present review assesses the effects of a policy of early amniotomy with early oxytocin administration for the prevention of, or the therapy for, delay in labour progress.

Objectives: To estimate the effects of early augmentation with amniotomy and oxytocin for prevention of, or therapy for, delay in labour progress on the caesarean birth rate and on indicators of maternal and neonatal morbidity.

Search strategy: We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (November 2008), MEDLINE (January 1970 to November 2008), EMBASE (1980 to November 2008), CINAHL (1982 to November 2008), MIDIRS (1985 to November 2008) and contacted authors for data from unpublished trials.

Selection criteria: Randomized and quasi-randomized controlled trials that compared oxytocin and amniotomy to expectant management.

Data collection and analysis: Three authors extracted data independently. We stratified the analyses into 'Prevention Trials' and 'Therapy Trials' according to the status of the woman at the time of randomization. Participants in the 'Prevention Trials' were unselected women, without slow progress in labour, who were randomized to a policy of early augmentation or to routine care. In 'Treatment Trials' women were eligible if they had an established delay in labour progress.

Main results: Twelve trials, including 7792 women, were included. The unstratified analysis found early intervention with amniotomy and oxytocin to be associated with a modest reduction in the risk of

caesarean section; however, the confidence interval crossed unity and was compatible with no effect (risk ratio (RR) 0.89; 95% confidence interval (CI) 0.79 to 1.01). In Prevention trials, early augmentation was associated with a modest reduction in the number of caesarean births (RR 0.88; 95% CI 0.77 to 0.99). A policy of early amniotomy and early oxytocin was associated with a shortened duration of labour (mean difference - 1.11 hour). Sensitivity analyses excluding three trials with a full package of Active Management did not substantially affect the point estimate of the effect (RR 0.87; 95% CI 0.73 to 1.04). We found no other significant effects for the other indicators of maternal or neonatal morbidity.

Authors' conclusions

In prevention trials, early intervention with amniotomy and oxytocin appears to be associated with a modest reduction in the rate of caesarean section over standard care.

A Low Dose Oxytocin Regime for Induction and Augmentation of Labour

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SINGAPORE MED J 1990; Vol 31: 321 - 326

A low dose oxytocin regime was used in Labour Ward, Alexandra Hospital for the induction and augmentation of labour. It utilised an oxytocin infusion administered in an arithmetic progression from 1 to 16 mU in a peristaltic infusion pump. A total of 100 patients (67 for augmentation and 33 for induction of labour) classified according to parity were studied. An overall vaginal delivery rate of 87% was obtained. The overall mean durations of labour for nulliparous and multiparous patients were 6.6 hours (S.D. ± 2.9 hours) and 4.9 hours (S.D. ± 2.8 hours) respectively. The mean induction delivery time for nulliparous patients was 6.4 hours (S.D. ± 3.2 hours) and for multiparous patients it was 4.0 hours (S.D. ± 2.2 hours). About 69% of the nulliparae and 94% of the multiparae who were induced delivered within 9 hours. All the induced patients delivered within 12 hours. Neonatal outcome was good as assessed by Apgar score.

Keywords: Oxytocin, induction of labour, augmentation of labour, vaginal delivery rate, induction-delivery time, neonatal outcome.

Laparoscopically assisted uterine fibroid cryoablation

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Pansky M, Cowan BD, Frank M, et al.

Am J Obstet Gynecol 2009;201:571.e1-7

Objective: The objective of the study was to develop a safe and effective cryoablation technique for the treatment of uterine fibroids.

Study Design: This was a multicenter pilot case series to evaluate cryoablation of uterine fibroids using laparoscopically assisted placement of 17-gauge cryoablation needles. Patient satisfaction was documented with a validated Uterine Fibroid Symptom and Quality of Life (UFS-QOL) questionnaire. Procedural efficacy was evaluated by assessing fibroid shrinkage. Treatment was followed by assessments at 3, 6, and 12 months.

Results: Median fibroid volume reduction was 43.3% (19 patients) and 66.4% (15 patients) at 6 and 12 months, respectively. Median UFS-QOL score improvement was 61.9% and 66.7% at 6 and 12 months, respectively. Additionally, patients experienced marked improvement of bleeding and fibroid bulk symptoms. The median Symptom Severity Score at baseline was 50, 25.0 (–59%) at 6 months, and 12.5 (–66.7%) at 12 months.

Conclusion: These pilot data indicate that uterine fibroid cryoablation is a safe and effective minimally invasive alternative to treat symptomatic uterine fibroids.

Tea consumption and risk of endometrial cancer: a metaanalysis

Tang N-P, Li H, Qiu Y-L, et al.

Am J Obstet Gynecol 2009;201:605.e1-8.

Objective: The objective of the study was to assess the association between tea consumption and endometrial cancer.

Study Design: Studies were identified by searching PubMed and EMBASE databases and screening the references of retrieved articles. The summary relative risk (RR) with 95% confidence interval (CI) was calculated.

Results: The combined RR for ever drinkers vs non/lowest drinkers was 0.85 (95% CI, 0.77–0.94).

Compared with non/lowest drinkers, the summary RR was 0.88 (95% CI, 0.78–0.98) for low to moderate drinkers and 0.75 (95% CI, 0.64–0.88) for high drinkers. An increase in tea intake of 2 cups/day was associated with a 25% decreased risk of endometrial cancer. In subgroup analyses, tea consumption was significantly associated with reduced endometrial cancer risk in Asian studies and studies using interviewing techniques. Furthermore, the protective effect of green tea on endometrial cancer seemed more evident than that of black tea.

Conclusion: Findings from this metaanalysis suggest that tea consumption may reduce the risk of endometrial cancer. Because of the limited number of studies, further prospective studies are needed to explore the protective effect of tea on endometrial cancer.

Uterine rupture after previous caesarean section

Al-Zirqi I, Stray-Pedersen B, Forsén L, Vangen S.

BJOG 2010;117:809–820.

Objective To determine the risk factors, percentage and maternal and perinatal complications of uterine rupture after previous caesarean section.

Design Population-based registry study.

Population Mothers with births 28 weeks of gestation after previous caesarean section (n = 18 794), registered in the Medical Birth Registry of Norway, from 1 January 1999 to 30 June 2005.

Methods Associations of uterine rupture with risk factors, maternal and perinatal outcome were estimated using cross-tabulations and logistic regression.

Main outcome measure Odds of uterine rupture

Results A total of 94 uterine ruptures were identified (5.0/1000 mothers). Compared with elective prelabour caesarean section, odds of rupture increased for emergency prelabour caesarean section (OR: 8.63; 95% CI: 2.6–28.0), spontaneous labour (OR: 6.65; 95% CI: 2.4–18.6) and induced labour (OR: 12.60; 95% CI: 4.4–36.4). The odds were increased for maternal age 40 years versus <30 years (OR: 2.48; 95% CI: 1.1–5.5), non-Western (mothers born outside Europe, North America or Australia) origin (OR: 2.87; 95% CI: 1.8–4.7) and gestational age 41 weeks versus 37–40 weeks (OR: 1.73; 95% CI: 1.1–2.7). Uterine rupture after trial of labour significantly increased severe postpartum haemorrhage (OR: 8.51; 95% CI: 4.6–15.1), general anaesthesia exposure (OR: 14.20; 95% CI: 9.1–22.2), hysterectomy (OR: 51.36; 95% CI: 13.6–193.4) and serious perinatal outcome (OR: 24.51 (95% CI: 11.9–51.9). Induction by prostaglandins significantly increased the odds for uterine rupture compared with spontaneous labour (OR: 2.72; 95% CI: 1.6–4.7). Prelabour ruptures occurred after latent uterine activity or abdominal pain in mothers with multiple or uncommon uterine scars.

Conclusion Trial of labour carried greater risk and graver outcome of uterine rupture than elective repeated caesarean section, although absolute risks were low. A review of labour management and induction protocol is needed.