Re: A systematic review and network meta-analysis comparing the use of Foley catheters, misoprostol and dinoprostone for cervical ripening in induction of labour

Excessive uterine activity is a maternal, neurological emergency

Irrespective of its source (misoprostol, oxytocin, prostaglandin E$_2$), excessive uterine activity may avulse the uterosacral ligaments from their origins at the sacrum, or, their insertions into the uterus (Figure 1).$^1$ Their central neurovascular bundle contains the nerve supply to the uterus and fallopian tubes, with branches running across the mesosalpinx to the outer longitudinal muscle of the isthmus of the fallopian tube. Injuries to either set of nerves may result in infertility, ectopic pregnancy, chronic pelvic pain or, in the case of complete avulsion of the uterosacral ligaments, advanced painless adenomyosis (uterine weight 250–1000 g).$^{2-4}$ The attenuated appearances of the uterosacral ligaments at laparoscopy are distinctive. Careful consideration of dosage regimens of uterotonic agents in all clinical settings may avoid these very serious complications, and, re-consideration of the role of mechanical methods of induction of labour, including laminaria and catheters, may be helpful.$^1$

References


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Authors’ reply

Sir,

We appreciate the comments from Quinn$^1$ regarding our recently published paper$^2$ and the opportunity to respond. We understand the concerns over excessive uterine activity during cervical ripening. Uterine hyperstimulation may cause severe maternal and fetal complications. Misoprostol was thought to have more uterine contractile activity than dinoprostone. Our review indicates that oral misoprostol may be preferable to vaginal misoprostol and it is comparable with intracervical dinoprostone and vaginal dinoprostone with regard to hyperstimulation with fetal heart rate changes. The dramatically lower cost and effectiveness of misoprostol warrant future clinical trials to explore the optimal dose and dosing interval that balance effectiveness and safety.

Our review shows that the Foley catheter causes the fewest cases of hyperstimulation with fetal heart rate changes. The use of Foley catheter for cervical ripening has long been a cause of concern.