Rupture of the cervix during prostaglandin termination of pregnancy

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Summary

A case of uterine rupture following extra-amniotic prostaglandin E₂ with a subsequent obstetrical complication is reported.

Introduction

Uterine rupture as a complication of therapeutic mid-trimester abortion has been reported with prostaglandins administered by the intravenous, intra-amniotic and extra-amniotic routes (Traub and Ritchie, 1979). Although it remains rare, nevertheless it is sometimes fatal.

Rupture of the uterus following prostaglandin-induced therapeutic abortion is usually of the cervix, although other sites have been described (Emery, Jarvis and Johnson, 1979). Lateral and anterior ruptures have been reported (Kajanoja *et al.*, 1974) but posterior tears are commonest (Kajanoja *et al.*, 1974; Wentz, Thompson and King, 1973; Burkman *et al.*, 1976).

Previous reports have described excessive blood loss when hysterectomy was necessary to control the loss. The present authors report a case of uterine rupture following extra-amniotic prostaglandin E₂, where repair was effected but in which a further rupture occurred during a subsequent pregnancy.

Case history

When 17 years old, this patient had a therapeutic termination of her first pregnancy at 16 weeks of gestation. Extra-amniotic prostaglandin E₂ together with intravenous syntocinon was given for 36 hr before expulsion of the products. Excessive vaginal bleeding then prompted examination, when a 3-4 cm longitudinal posterior cervical laceration was found. This was repaired under general anaesthesia with interrupted chromic catgut sutures. The overall blood loss was 200 ml and blood transfusion was not necessary. The patient made an uneventful recovery and there was no fistula when she was examined at the follow-up clinic. The patient was next seen, 2 years later, in labour, when 38 weeks pregnant, having had no antenatal care. On examination a closed cervical os was found and a posterior cervical rupture 5 cm

long. Emergency Caesarean section was performed and a live female infant was born. The laceration was again repaired.

Discussion

As each method for inducing abortion has been introduced there have followed reports of associated uterine damage. Berk, Ullman and Berger (1971) described 2 instances of the fetus being extruded through a laceration of a posterior uterine sacculataion in the absence of cervical dilatation following intra-amniotic hypertonic saline. Gordon (1972) reported a transverse laceration of the posterior fornix resulting in cervico-vaginal fistula, associated with intra-amniotic hypertonic saline and Goodline *et al.* (1972) described 4 further cases, only one of which was recognized at the time of abortion. Severe cervical damage after intra-amniotic urea and prostaglandin F_{2α} (Watson, Beard and Craft, 1972) and cases of cervical rupture after intra-amniotic prostaglandin F₂ have been described (Wentz *et al.*, 1973; Kajanoja *et al.*, 1974). Burkman *et al.* (1976) had 6 cases using intra-amniotic prostaglandin and urea. Similarly both cervical and uterine rupture have been noted after intra-amniotic prostaglandin F₂ and hypertonic saline (Borten and Friedman, 1978; Emery *et al.*, 1979). Lowensohn and Ballard (1974) thought that 1% of terminations using intra-amniotic prostaglandin alone resulted in cervico-vaginal fistula.

It was hoped that the introduction of prostaglandin to induce abortion by the extra-amniotic route would reduce such side effects, but rupture of the uterus after extra-amniotic prostaglandin E₂ and intravenous syntocinon have been reported (Traub and Ritchie, 1979). A similar rupture is reported from the present case, but this was repaired only to recur in a subsequent spontaneous labour.

References

- BERK, E., ULLMAN, J. & BERGER, J. (1971) Experience and complications with the use of hypertonic intra-amniotic saline solution. *Surgery, Gynecology and Obstetrics*, **133**, 955.

- BORTEN, M. & FRIEDMAN, E.A. (1978) Uterine rupture: a complication of mid-trimester abortion. *Prostaglandins*, **15**, 187.
- BURKMAN, R.T., ATIENZA, M.F., KING, T.M. & BURNETT, L.S. (1976) Intra-amniotic urea and prostaglandin F_2 alpha for mid-trimester abortion. *American Journal of Obstetrics and Gynecology*, **126**, 328.
- EMERY, S., JARVIS, G.J. & JOHNSON, D.A.N. (1979) Uterine rupture after intra-amniotic injection of prostaglandin E_2 . *British Medical Journal*, **2**, 51.
- GOODLINE, R., NEWELL, J., O'HARE, J. & STURZ, H. (1972) Cervical fistula; a complication of mid-trimester abortion. *Obstetrics and Gynecology*, **40**, 82.
- GORDON, R.T. (1972) Cervical vaginal fistula as a result of saline abortion. *American Journal of Obstetrics and Gynecology*, **112**, 578.
- KAJANOJA, P., JUNGNER, G., WIDHOLM, O., KARJALAINON, O. & SEPPALA, M. (1974) Rupture of the cervix in prostaglandin abortion. *Journal of Obstetrics and Gynaecology of the British Commonwealth*, **81**, 242.
- LOWENSOHN, R. & BALLARD, C.A. (1974) Cervico-vaginal fistula: an apparent increased incidence with prostaglandin F_2 alpha. *American Journal of Obstetrics and Gynecology*, **119**, 1057.
- SHEARMAN, R., SMITH, I. & KORDA, A. (1972) In: *Prostaglandin Clinical applications in Human Reproduction*; p. 443. (Ed by Southern, R.P.) Futura Publications, New York.
- TRAUB, A.I. & RITCHIE, J.W.K. (1979) Rupture of the uterus during prostaglandin-induced abortion. *British Medical Journal*, **2**, 496.
- WATSON, P.J.B., BEARD, R.J. & CRAFT, L. (1973) Injuries to the cervix after induced mid-trimester abortion. *Journal of Obstetrics and Gynaecology of the British Commonwealth*, **80**, 284.
- WENTZ, A.C., THOMPSON, B.H. & KING, T.M. (1973) Experience with intra-amniotic prostaglandin F_2 alpha. *American Journal of Obstetrics and Gynecology*, **117**, 513.