

# UTERINE RUPTURE WITH THE USE OF CERVAGEM (PROSTAGLANDIN E<sub>1</sub>) FOR INDUCTION OF LABOUR ON ACCOUNT OF INTRAUTERINE DEATH

A S Thavarasah, K Siva Achanna

## SYNOPSIS

A case of ruptured uterus following induction of labour with Cervagem (gemeprost, a 16, 16-dimethyl-tras- $\Delta^2$  PGE<sub>1</sub> methyl ester) for intrauterine death in a multipara was reported. The uterine size corresponded to 24 weeks gestation and the rupture occurred following insertion of 1.0 mg of the pessary in the posterior fornix.

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## CASE REPORT

A 36 year old gravida nine, para eight was referred from a District Hospital with a history of loss of fetal movements for one week. She was unsure of the date of her last menstrual period but the uterine size corresponded to 24 weeks gestation. Her previous pregnancies were all normal and terminated in normal deliveries, the last five were home deliveries. She had not attended the antenatal clinic for this pregnancy except for the visit two weeks ago because of the loss of fetal movements. Intra-uterine death was diagnosed on clinical as well as on ultrasound findings. Her haemoglobin was 10.8gms percent and the results of the coagulation profiles were within normal limits.

Cervagem, vaginal pessary containing 1.0 mg gemeprost I.N.H. was introduced into the posterior fornix, the following day at 10.00 a.m. to induce labour. The patient developed strong uterine contractions by 12.00 noon. Two hours later, she was found pale, with moderate per vaginal bleeding. Her pulse rate was 98 per minute, B.P. 130/80 and abdominal examination revealed dullness in both flanks, with severe tenderness in the lower abdomen. A ruptured uterus was strongly suspected and confirmed by an urgent ultrasound examination.

At laparotomy uterine rupture, with extrusion of the fetal sac was noticed on the right side involving the broad ligament. There was a large retro-peritoneal hematoma on the right side. About a litre of free blood was found in the peritoneal

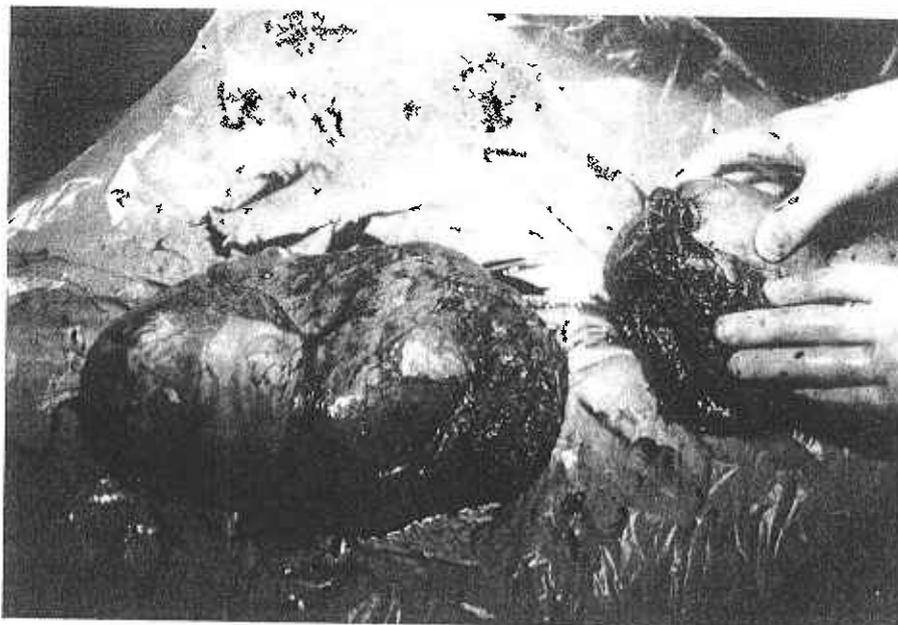


Fig 1 Specimen of the uterus showing the rupture and the extruded fetal sac.

Department of Obstetrics & Gynaecology  
University Hospital  
University Science Malaysia  
15990 Kota Bharu  
Kelantan  
Malaysia

A S Thavarasah, MB, FRCOG, FSLCOG.  
Ave, FICS, Associate Professor  
Siva Achanna, MB, MRCOG, Hon Lecturer

Correspondence to: Dr Thavarasah

cavity. The right ureter was displaced laterally. A subtotal hysterectomy was performed (Fig 1 & 2). The patient had an unevenful recovery. Intravenous urogram done two weeks later showed normal functioning kidneys and ureters.

## DISCUSSION

Prostaglandins are now increasingly used in the management of intra uterine deaths and mid trimester missed abortions.<sup>(1)</sup> Both F<sub>2</sub> alpha<sup>(2)</sup> and analogues of E<sub>2</sub> are used by

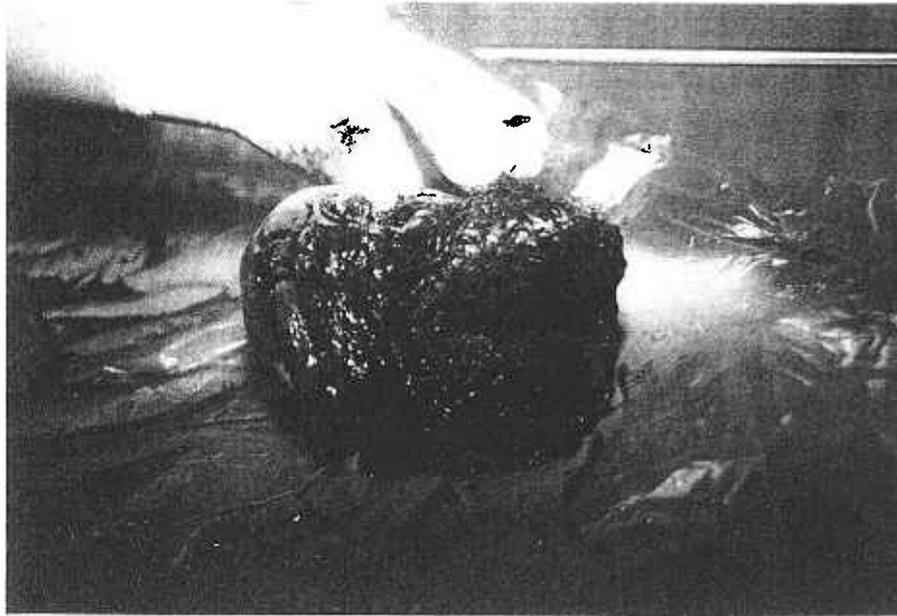


Fig 2 Specimen of the uterus showing the right sided rupture.

different routes to achieve better results with minimal side effects.<sup>(1)</sup> Cervagem, a 16, 16-dimethyl-tras- $\Delta^2$  PGE, methyl ester was introduced in the late seventies and is now commercially available. This analogue of prostaglandin E<sub>1</sub>, previously referred as ONO-802 is a potent uterine stimulant with greatly increased sensitivity of action with regards to side effects and metabolic stability when compared to both PGE<sub>2</sub> and PGF<sub>2</sub> alpha<sup>(1)</sup> and has been recommended as the first choice in patients with intra uterine death.<sup>(3)</sup> Even though prostaglandins are useful in the management of mid-trimester missed abortions, fetal deaths, and hydatidiform moles,<sup>(1, 2, 3)</sup> this case illustrates its cautious use, especially in the grand multiparae. Uterine rupture has been reported in cases of induction of labour for intra uterine deaths using prostaglandin F<sub>2</sub>

alpha<sup>(4)</sup> and prostaglandin E<sub>2</sub> vaginal pessaries.<sup>(5)</sup> Hyperstimulation of the uterus especially in the multiparae resulting in uterine rupture following induction of labour using prostaglandin E<sub>2</sub> either vaginally or orally has also been reported.<sup>(6)</sup> The fact that the rupture occurred with a dosage of 1.0 mg of Cervagem in this patient, illustrates its cautious use in the grand multiparous women, even when the uterine size is smaller than 28 weeks size. The use of prostaglandins in cervical ripening and induction of labour is generally accompanied by tocographic monitoring for evidence of hyperstimulation. However in cases of intrauterine deaths where the uterine size is less than 28 weeks, this may be skipped leading to delay in the diagnosis, as happened in this case.

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