

Case Report :
AORTOCAVAL COMPRESSION
SECONDARY TO AN OVARIAN CYST

by

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SUPINE hypotension is a common complication of late pregnancy and is due to the compression of the abdominal aorta and inferior vena cava between the spine and the gravid uterus.¹ Tilting the patient to the left or right displaces the uterus and relieves the pressure on the major vessels. A case is reported where this manoeuvre failed.

The patient was a healthy 29-year-old primigravida, weighing 63 kg, who was referred to the antenatal clinic with 12 weeks' amenorrhoea. She refused pelvic examination, but an ultrasonic scan confirmed a singleton pregnancy.

No ovarian or other pelvic abnormality was observed. The pregnancy was uneventful apart from a persistent breech presentation. At 42 weeks' gestation it was decided to deliver the patient by elective lower uterine segment Caesarean section under epidural anaesthesia because of the breech presentation and large fetus. Pelvic examination prior to delivery was otherwise unremarkable.

Ranitidine 150 mg was given orally as routine antacid treatment. Vascular pre-loading was with 1.0 litres of Hartmann's solution, and throughout this process the patient received 40% oxygen in air via a face mask. The epidural space was cannulated at L2-3 and correct placement of the catheter was confirmed with 3 ml of 0.5% bupivacaine plain. A further 10 ml was injected with the patient sitting upright, followed 10 minutes later by 9 ml with her supine and tilted 15 degrees to the left.

Pinprick testing revealed a sensory block to the T5 dermatome on the left and to the T10 on the right. A 15 degree right lateral tilt was then instituted to displace the uterus, and a further 4 ml of bupivacaine was administered, giving a total dose of 130 mg.

Within a minute of being tilted to the right, the patient developed pallor and complained of feeling 'sick and dizzy'. Her blood pressure, which had been satisfactory at 140/90 mm Hg during the earlier period of left lateral tilt, fell to 90/60 mm Hg. The pulse rate decreased from 90 to 74 beats per minute. Further manual displacement of the uterus to the right failed to relieve the situation.

The patient was then quickly tilted to the left with immediate improvement in colour and symptoms, the blood pressure returning to 130/80 mm Hg.

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Adequate block developed without further adjustments, and a healthy male child was delivered with 1 and 5 minute Apgar scores of 7 and 9 respectively. Intra-operatively a ten centimetre diameter right ovarian cyst was found encased in dense fibrous adhesions and intimately adherent to the right uterine cornu and Fallopian tube. The left ovary and Fallopian tube were completely obscured by dense adhesions. To minimise further tubo-ovarian damage, simple aspiration of the cyst was performed, yielding 500 ml of clear fluid which subsequently showed no cytological abnormality. At follow-up the cyst had not recurred.

DISCUSSION

Supine hypotension is more common in patients receiving epidural anaesthesia than in those given a general anaesthetic for Caesarean delivery. To diminish its frequency and severity, adequate fluid preloading and lateral tilting are essential parts of its management.² It has been shown that, despite these measures, hypotension can still occur and is more frequent if right lateral tilt is used.³ The abrupt fall in blood pressure with associated symptoms of nausea and faintness which presented here, occurred only when the patient was in the right lateral position and did not respond to right manual uterine displacement, because the available intra-abdominal space was occupied by the cyst, preventing movement of the uterus with resultant aortocaval compression.

A similar episode of acute hypotension has been reported,⁴ associated with epidural anaesthesia for Caesarean delivery, but in that case the associated abnormality was a bicornuate uterus. It is worth remembering therefore that parturients given epidural anaesthesia who develop hypotension unresponsive to uterine displacement may have space occupying abdominal pathology and the opposite lateral tilt should be instituted immediately.

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