J Anesth (2012) 26:959–960
DOI 10.1007/s00540-012-1450-2

LETTER TO THE EDITOR

Spontaneous splenic vein bleeding during pregnancy: consequences of a missed diagnosis

Muhammad Ajmal

Received: 24 May 2012 / Accepted: 28 June 2012 / Published online: 26 July 2012

Keywords Pregnancy · Spontaneous bleeding · Missed diagnosis · Consequences

To the Editor:

Spontaneous splenic vein bleeding is a rare complication during pregnancy. In a recent case, it mimicked premature labor [1] or a twisted adnexal cyst and remained undiagnosed until the cesarean section was already underway.

A woman at 32 weeks gestation presented with a 1-h history of abdominal pain. She also had a left adnexal dermoid cyst. Upon admission, her vital signs were: pulse 114/min, blood pressure (BP) 119/87 mmHg, temperature 36 °C, hemoglobin 11.9 g/dl, white cell count 19.44 × 10^9/L, and blood oxygen saturation (SpO_2) 98 % breathing room air, and she was mentally alert. The fetus was in satisfactory condition. Obstetric ultrasound scan was normal. Tocolytic treatment and pethidine had no effect on pain relief. Six hours after her admission, a category II emergency cesarean section was performed due to her abdominal pain. The patient was slightly tachycardiac on arrival at the operating room (pulse 114/min); however, no other feature of hypovolemia was present. The tachycardia was assumed to be due to abdominal pain. She was unable to lie flat for the induction of general anesthesia and, as there was no obvious contraindication, spinal anesthesia was administered in the left lateral position. The spinal block was effective, and the abdominal pain was relieved, but her hemodynamics became very unstable. A normal fetus was delivered but the patient was suffering from severe bleeding. An extensive laparotomy under general anesthesia revealed a spontaneous splenic vein bleed. Hemostasis was achieved without splenectomy. Blood loss of 3 L resulted in a hemoglobin drop to 5.5 g/dl because cross-matched blood products were not readily available due to the exclusion of hemorrhage in the differential diagnosis. Her postoperative course remained uneventful.

Spontaneous bleeding during pregnancy can arise from utero-ovarian vessels or distant sources, such as the splenic, hepatic, superior mesenteric, or celiac arteries [2, 3]. Arterial bleeds are dramatic, with rapid cardiovascular collapse [2]. Venous bleeding may be dramatic [3] or may present only with subtle features of hemoperitoneum. Spontaneous bleeding, including splenic bleeding, is a rare complication during pregnancy, so it can be misdiagnosed because the "eyes do not see what the mind does not know". Sudden-onset abdominal pain of uncertain origin in a parturient should raise the suspicion of non-obstetric abdominal pathology, e.g., spontaneous abdominal bleeding, and should be evaluated appropriately such as with a computed axial tomography (CT). Parturients do not show obvious features of hypovolemia unless 30–40 % of blood volume is lost. Failure to recognize such a condition is dangerous for anesthetic intervention. The responsibility for diagnosis in such cases may rest primarily on obstetricians, but anesthesiologists are equally responsible for identifying such a potentiality. Ultimately, it is the anesthesiologist who is responsible for ensuring patient safety.

This case report is presented with written consent of the patient.

M. Ajmal
Department of Anesthesia, Letterkenny General Hospital, Letterkenny, Ireland

Present Address:
M. Ajmal (✉)
Department of Anesthesia,
Beaumont Hospital, Beaumont, Dublin 9, Ireland
e-mail: ajmal_c@hotmail.com

Conflict of interest None.

References

1. Richardson AJ, Bahlool S, Knight J. Ruptured splenic artery aneurysm in pregnancy presenting in a manner similar to pulmonary embolus. Anaesthesia. 2006;61:187–9.
2. Tariq N, Amir M, Khan S, Tariq H. Spontaneous rupture of splenic artery aneurysm during pregnancy—a mortal blow. Rawal Med J. 2009;34:238–9.
3. Eckerling B, Goldman J, Yado S. Spontaneous rupture of the splenic vein in pregnancy with massive retro and intraperitoneal hemorrhage. Am J Surg. 1962;103:636–9.