

Unusual pelvic vascular anatomy: Post delivery hematoma arising from middle sacral artery anastomosis with middle rectal arteries

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ABSTRACT

Introduction: Postpartum hematomas are uncommon but potentially serious complications that may result from trauma, vascular injury, or anatomical variations. While most pelvic hematomas arise from branches of the internal iliac artery, bleeding from atypical vascular sources such as the middle sacral artery is rarely reported. The middle sacral artery, a small vessel arising from the posterior aorta, can form anastomoses with adjacent pelvic arteries, including the middle rectal arteries. These connections, though uncommon, may become clinically significant in cases of obstetric trauma. We report a rare case of postpartum haemorrhage secondary to a hematoma arising from a middle sacral–middle rectal artery anastomosis. **Case Description:** A 27-year-old primigravida at 38+2 weeks gestation delivered vaginally following a precipitated labour. Nine hours postpartum, she developed severe perineal pain and hemodynamic instability (BP 85/43 mmHg, HR 130 bpm). Examination revealed a contracted, left-deviated uterus and a right vulvar hematoma. Ultrasound demonstrated a 9.8 × 8.7 cm vaginal hematoma with minimal free fluid. Laboratory tests showed a haemoglobin of 3.9 g/dL. She received 4 units each of packed red cells, FFP, platelets, and cryoprecipitate. CT angiography identified the bleeding source, and selective embolisation of a terminal branch of the middle sacral artery was performed at a tertiary centre. **Discussion:** This case illustrates the importance of considering rare vascular variants in unexplained postpartum bleeding. CT angiography was essential in diagnosis, and interventional radiology enabled successful haemorrhage control. Awareness of pelvic vascular anatomy and early multidisciplinary intervention are crucial in managing atypical sources of postpartum haemorrhage.