

Idiopathic Spontaneous Hemoperitoneum During Early Postpartum Period: Case Report

Erken Postpartum Dönemde İdiyopatik Spontan Hemoperitonyum

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ABSTRACT We present a 25 year-old woman who was examined for abdominal pain after uncomplicated spontaneous delivery. An intraabdominal hemorrhage was suspected and laparotomy was performed after the delivery. Postpartum spontaneous hemoperitoneum can be associated with vascular malformations, ectopic decidualization and avulsion of pelvic uterine adhesion band. Full exploration of abdominal cavity, including intraabdominal and retroperitoneal organs, revealed no source of hemorrhage. To best of our knowledge, this is a very rare case of idiopathic spontaneous hemoperitoneum at early postpartum period.

Key Words: Hemoperitoneum; delivery, obstetric; hemorrhage

ÖZET Komplike olmayan spontan doğum sonrası karın ağrısı nedeniyle muayene edilen 25 yaşındaki kadın hastayı sunuyoruz. Postpartum intraabdominal kanamadan şüphelenildi ve laparotomi uygulandı. Postpartum spontan kanamanın nedenleri arasında vasküler malformasyonlar, ektopik desidüalizasyon ve pelvik üterin adezyon bandının ayrılması sayılabilir. İntraabdominal ve retroperitoneal organları kapsayacak biçimde abdominal kavitenin tam araştırması yapıldı ve kanama kaynağı açığa çıkmadı. Bilgimize göre bu vaka erken postpartum periyottaki ilk idiyopatik spontan hemoperitonyum olgusudur.

Anahtar Kelimeler: Hemoperitonyum; doğum,obstetrik; kanama

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Intraperitoneal bleeding, a life-threatening situation in spite of prompt intervention, can rarely occur spontaneously in the postpartum period and the bleeding has been reported to originate from utero-ovarian vessels and splenic vessels.^{1,2} Postpartum spontaneous hemoperitoneum can also be associated with vascular malformations, ectopic decidualization and avulsion of the pelvic uterine adhesion band.²⁻⁴ In this report, we describe a postpartum patient with idiopathic spontaneous hemoperitoneum (ISH), which is possibly associated with endometriosis and avulsion of uterine adhesion band or ectopic decidualization.

CASE REPORT

A 25-year-old woman (gravida 2, parity 0) was admitted to our clinic at 38 weeks of gestation. No chronic diseases or drug use were noted in the med-

ical history. Physical examination revealed no abnormal signs. A single baby at 36 weeks of gestation was observed in ultrasonography. The patient's hemoglobin concentration was 14.0 mg/dL and there was no abnormal findings in the blood chemistry or urine tests.

A 2400 g healthy baby was delivered with spontaneous vaginal route. The uterus was not atonic after the delivery and we observed vaginal bleeding just in the normal limits. Two hours after the delivery, the patient described abdominal pain and subsequent distention. A minimal tenderness was found in abdominal examination and ultrasound examination revealed minimal free fluid in the Douglas pouch. Ten hours after delivery, severity of abdominal pain and distention increased. She had obstipation, but no nausea, vomiting or fever. There was rebound tenderness, as well as distinct abdominal tenderness and defense in palpation. There was no tachycardia or hypotension. No stool or blood was found in rectal examination. There was also no blood on nasogastric tube drainage. A Foley catheter was inserted to follow urinary excretion. Most of the laboratory parameters were within the normal ranges. The hemoglobin level decreased to 10.4 mg/dL. No free air was seen at subdiaphragmatic area on abdominal X-ray. The ultrasonography showed free fluid in peritoneum extending up to greater pelvis. Thus, she was diagnosed as intra-abdominal hemorrhage, and underwent laparotomy.

During the surgical procedure, an inferiomedian incision was performed and approximately 1,500 mL of fresh and clotted blood was removed. There was no evidence of uterine rupture. There were varicose veins on the anterior surface of uterus, minimal endometriosis in the Douglas pouch and on the posterior surface of uterus. There was an omental adhesion to this endometriotic focus. A 1x1 cm endometriosis-like tissue was found on the surface of the left ovary, which was then excised. Parametrium, round ligament, infundibulopelvic ligaments and utero-ovarian ligament were normal. Peritoneum, bladder and Retzius' space were intact. This intraoperative appearance was insufficient to explain the presence

of massive blood in the abdomen. Thus, abdominal incision was extended. Upper umbilicus, all intestinal organs, liver and spleen were normal. There was no sign of retroperitoneal bleeding. We could not determine a definitive source for the bleeding. Therefore, we finished the surgical procedure after placing a drain in the Douglas space. No signs of intra-abdominal bleeding were observed during follow-up.

Postoperative platelet count was 400,000/dL and international normalized ratio (INR) was 1.07. Autoimmune parameters, platelet function tests and bleeding time were all normal. The tissue, excised from the left ovary, was reported by the pathology department as ectopic decidualization. The patient and her baby were discharged on the fifth postoperative day without any further complications. The patient signed the consent form and declared that her clinical data might be used for a scientific aim.

DISCUSSION

Spontaneous intraperitoneal hemorrhage during pregnancy or in the postpartum period is a rare, but life-threatening entity.³ Thus, first of all, one has to know and suspect that intra-abdominal spontaneous bleeding can occur at postpartum period. Although laboratory findings and imaging modalities are helpful, the importance of physical examination findings and follow-up should be emphasized again.

The blood found in abdomen may range from 500 mL to 4,000 mL and therefore, it is essential to achieve a rapid preoperative preparation and preparation for the blood transfusion.⁵ Operation should be started by a median incision, however the incision line may be extended superiorly since the bleeding focus may be anywhere in the abdomen. However, it should be kept in mind that, in rare instances the surgeon may not find a bleeding focus.

Vascular malformations may be the gynecologic or non-gynecologic sources of intra-abdominal spontaneous bleeding during pregnancy and in the postpartum period.^{1,2} Avulsion of a pelvic uterine adhesion band in the right uterine cornus and the base of the right fallopian tube was defined as

the source of bleeding by Fu et al. O'Leary reported massive intra-abdominal hemorrhage caused by ectopic desidual reaction after vaginal delivery.^{3,4} The source of intra-abdominal bleeding in the postpartum period was found and defined in all previously reported cases. During pregnancy, spontaneous hemoperitoneum may occur in the second half of pregnancy, at labor, and occasionally during the early postpartum period; and endometriosis is a major risk factor for this condition.⁵

Our case is a very rare case of ISH in the early postpartum period without an identifiable source

of bleeding. In addition, we suppose that endometriotic foci or an omental band, which detached from these foci, or ectopic decidualization could be the cause for the bleeding.

CONCLUSION

ISH should be considered after ruling out more common causes of hemoperitoneum. Idiopathic intraperitoneal bleeding can cause acute abdominal pain in the early postpartum period. Urgent decision making and quick intervention are necessary and life saving procedures for these rare cases.

REFERENCES

1. Moreira A, Reynolds A, Baptista P, Costa AR, Bernardes J. Case report: intra-partum utero-ovarian vessels rupture. *Arch Gynecol Obstet* 2009;279(4):583-5.
2. Pargaglioni R, Metta E, Zagari A, Celleno D. Spontaneous splenic vein aneurysm rupture in the puerperium. *Int J Obstet Anesth* 2009; 18(1):48-51.
3. O'Leary SM. Ectopic decidualization causing massive postpartum intraperitoneal hemorrhage. *Obstet Gynecol* 2006;108(3 Pt 2):776-9.
4. Fu HC, Ko SF, Ou CY, Hsu TY. Postpartum hemoperitoneum due to avulsion of pelvic uterine adhesion band. *South Med J* 2006;99(11):1300-1.
5. Brosens IA, Fusi L, Brosens JJ. Endometriosis is a risk factor for spontaneous hemoperitoneum during pregnancy. *Fertil Steril* 2009;92(4):1243-5.