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Case report

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An uncommon case of uterine rupture with retroperitoneal hematoma

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Abstract

Uterine rupture is a serious complication for both mother and child, occurring in 0.2 to 0.8% of attempts at vaginal delivery after cesarean section. A case of 29-year-old Moroccan woman, G2P2, with a previous caesarean section, was admitted to our emergency department at 38 weeks' gestation for acute fetal distress with complete cervical dilation. The delivery was imminent and done by vaginal route. The uterine revision objectified a uterine rupture. An immediate laparotomy was performed. The surgical exploration revealed uterine rupture on the right uterine edge with vascular pedicle lesion. More, we have found a huge hematoma of the right broad ligament diffusing into the right deep retroperitoneal space. The surgical management consisted of a total hysterectomy and packing of retroperitoneal hematoma. Removal of packing was performed on the fourth day after stabilization of clinical and biological parameters. Fortunately, the evolution was favorable under antibiotic therapy and massive transfusion. The patient was discharged from the hospital on the 10th postoperative day. The baby was doing well without any neurological sequelae.

Introduction

Uterine rupture is the most serious complication of attempted vaginal delivery after cesarean section. Not exceptional, it involves the vital materno-fetal prognosis. Uterine rupture is when the muscular wall of the uterus tears during pregnancy or childbirth. The incidence of uterine rupture in the general population is very low in industrialized countries, around 0.5 to 3/10000 deliveries, whereas it is higher in the case of an uterus with previous cesarean section [1,2]. We report here a rare case of uterine rupture with a huge retroperitoneal hematoma.

Patient and observation

A case of 29-year-old Moroccan woman, referred from a rural hospital center, G2P2, with a previous caesarean section, was presented to our emergency department at 38 weeks' gestation for lower abdominal pain without any vaginal bleeding. On clinical examination: she was conscious, apyretic, presented with paleness and fatigue, low blood pressure (95/60 mmHg), heart rate was 125 beats/min, a respiratory rate of 17 breaths/min. On vaginal examination, the presentation was cephalic with complete cervical dilatation, without any vaginal discharge. The sounds of the fetal heart were not well perceived and severe bradycardia. The patient was taken directly to the operating room. The delivery was imminent and done by vaginal route. A live female neonate was extracted uneventfully weighing 3370g and the Apgar score was 5 and 8 in 1 and 5 min respectively. The uterine revision was performed and objectified a uterine rupture. An immediate laparotomy with a midline vertical incision was performed. The exploration revealed a uterine rupture on the right edge with vascular pedicle lesion. More, we have found a huge hematoma of the right broad ligament diffusing into the right deep retroperitoneal space (Figure 1). The surgical management was consisted of a total hysterectomy and packing of retroperitoneal hematoma. Removal of packing was performed on the fourth day after stabilization of clinical and biological parameters. Fortunately, the evolution was favorable under antibiotic therapy and massive transfusion. The patient was discharged from the hospital on the 10th postoperative day. The baby was doing well without any neurological sequelae.

Discussion

The uterine rupture corresponds to two entities with different prognoses. The complete rupture involves all of the tissue layers of the uterine wall, including the peritoneal serosa (peritoneum, myometrium and endometrium). The water pocket can be broken, which is the most frequent case, or

remain intact. Unlike incomplete rupture, it is the more often symptomatic and requires urgent surgical repair [1]. The incomplete rupture (or sub-serous) rupture, often described as dehiscence, only concerns the endometrium and the myometrium and respects the visceral peritoneum. It is most often asymptomatic, incidentally diagnosed (during an iterative cesarean) and has a better maternal-fetal prognosis than complete rupture [3]. The most frequent situation is uterine rupture on a segmental cesarean scar (transverse or vertical). The available data do not allow us to know the respective frequency of complete or incomplete ruptures. In a large multicenter study, Landon *et al.* compared two prospective cohorts of patients with previously cesarean, according to their route of delivery: 17898 (attempts at vaginal delivery after cesarean section) and 15801 (scheduled cesareans after cesarean) [4]. In the first group, the rate of complete ruptures (n = 124: 0.7%) was comparable to the rate of incomplete ruptures (n = 119: 0.7%). However, the share of patients who have given birth vaginally and who have had a systematic manual revision of their uterine scar is not specified. In the second group, the frequency of dehiscences observed during the intervention was 0.5% (n = 76).

The risk of Rupture if a vertical corporeal scar (classical or T-incision) is significantly increased with reported rates between 4 and 9%, even reaching 12% in certain series [5]. The uterine rupture is most often complete [6,7]. This is why this type of scar contraindicates vaginal delivery in all of the North American and United Kingdom recommendations [8]. In our case, the rupture was localized on the right edge of the uterus and damaged the uterine pedicle with the formation of a large retroperitoneal hematoma. It is an extremely rare form may be due to a prolonged labour on a narrowed pelvis. The vaginal delivery was imminent in the operating room and the hemostasis was not assured. A total hysterectomy was performed. The retroperitoneal hematoma induced bleeding was managed by packing. Coverage with effective antibiotic therapy and massive transfusion were the main aspects of our attitude. Removal of packing was performed on the fourth day after stabilization of clinical and biological parameters. In totality, the management consisted of damage control resuscitation procedure, with massive transfusion.

Conclusion

The uterine rupture is a dramatic and urgent situation requiring early diagnosis. In our case, the rupture was atypical with the formation of a serious retroperitoneal hematoma. Thanks to packing, hemostasis was ensured and the patient was saved. A competent staff in rural health facilities, need to be aware of how to improve the rate of early diagnosis and reduce the risks and complications in patients.

Competing interests

The authors declare no competing interests.

Authors' contributions

All the authors have read and agreed to the final manuscript.

Figure

Figure 1: representing the site of uterine rupture with hematoma

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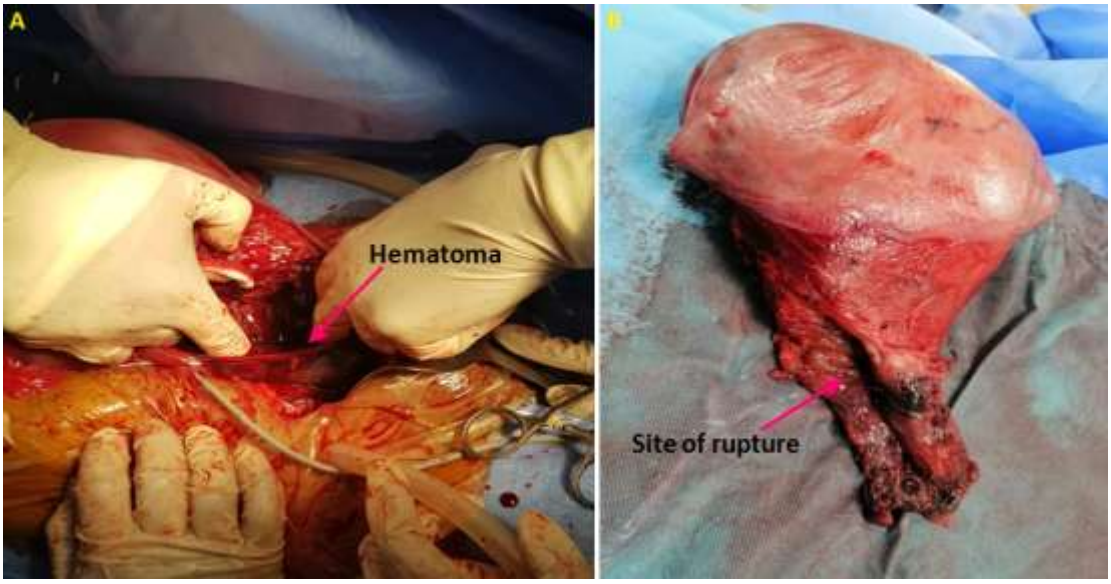

Figure 1: representing the site of uterine rupture with hematoma