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The HELLP syndrome: clinical issues and surgical management.

A Case Experience

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The HELLP syndrome: clinical issues and surgical management. A Case Experience

AIM: *This study aims to challenge the current know-how in patients with spontaneous rupture of a liver hematoma, to differentiate amongst patients requiring such specific surgical therapy and avoiding mistakes during surgical operations, in order to terminate pregnancy with beneficial effects on the mother and fetus.*
MATERIALS AND METHODS: *In a emergency scenario we admitted a 37-year-old woman at 35+4 weeks of gestation for emergency cesarean section after the onset of right hypochondrium pain. A diagnosis of hemoperitoneum and severe pre-eclampsia with liver and splenic bleeding was done and managed with packing of hepatic and splenic hematomas and according to her haemo-dynamic clinical conditions, done in different time.*
RESULTS: *A diagnosis of hemoperitoneum and severe pre-eclampsia with liver and splenic bleeding was done and managed it with 3 xypho-pubic-laparatomy in different time with haemostatic packing.*
DISCUSSION: *In this case report, the patient underwent an emergency caesarean section and was managed with packing of hepatic and splenic hematomas and according to her haemodynamic clinical conditions was operated in different time. The choice of laparotomy and hepatic packing has proved to be a viable option in patients with unstable vital signs and is feasible even in limited resource settings.*
CONCLUSION: *Short interval between diagnosis and management may enhance the feto-maternal survival rate and prevent further morbidity or mortality.*
The choice of laparotomy and hepatic packing has proved to be a viable option in patients with unstable vital signs and is feasible even in limited resource settings.

KEY WORDS: HELLP syndrome, Liver hematoma rupture, Packing

Background

HELLP syndrome is associated with serious maternal and fetal morbidity and mortality [1]. A rare and potentially life-threatening complication is the spontaneous rupture of a liver hematoma. The incidence is approximately 1 in 45,000 live births [2].

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Clinical presentation is nonspecific: epigastric pain, right upper quadrant pain and shoulder pain [3].
The literature literature deals treatments tant can be conservative through hepatic artery embolization, or surgical with packing of bleeding area.
This study aims to challenge the current know-how in patients with spontaneous rupture of a liver hematoma, to differentiate amongst patients requiring such specific surgical therapy and avoiding mistakes during surgical operations, in order to terminate pregnancy with beneficial effects on the mother and fetus.

Case Experience

A 37-year-old woman at 35+4 weeks of gestation was admitted to OB-GYN Clinic for emergency cesarean section after the onset of right hypochondrium pain.
The Ultrasound showed a hematoma of the liver in the VII-VIII segments and of the sub-glissian collection. At the splenic level, minimal organized blood collection (1 cm), as showed in Fig. 1.
The lower uterine segment was incised and an alive and viable fetus was extracted.
The patient was underwent to an exploratory laparotomy that confirmed the radiological findings.
A diagnosis of hemoperitoneum and severe pre-eclampsia with liver and splenic bleeding was done and managed it with 3 xypho-pubic-laparatomy in different time. Hemoperitoneum in the amount of 200 cc and subcapsular hematoma of right lobe of liver was highlighted. Two hepatic and one subhepatic laparotomy gauze (compression patch) was applied. The exploration of the splenic lodge showed the presence of bright red blood. Hemostasis with DTC, Tabotamp application, hemostatic glue (Evicel) and two laparotomic gauze (compression patch) in the splenic lodge was applied, as showed in Fig. 2. After 48 hours, the laparotomic gauze in the splenic and hepatic lodge was removed. The spleen

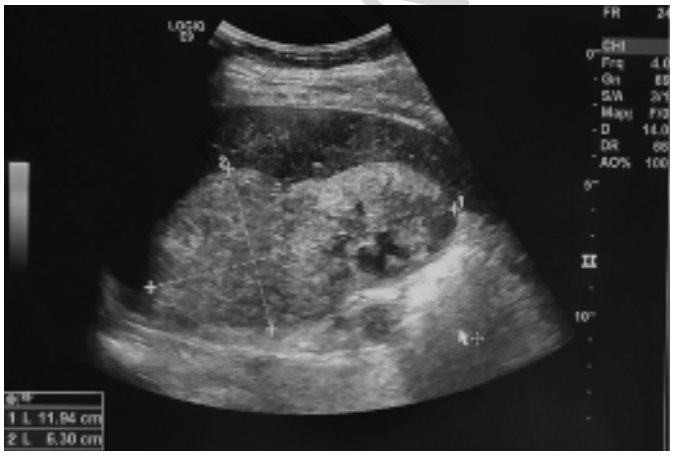

Fig. 1: Splenic level, minimal organized blood collection (1 cm).

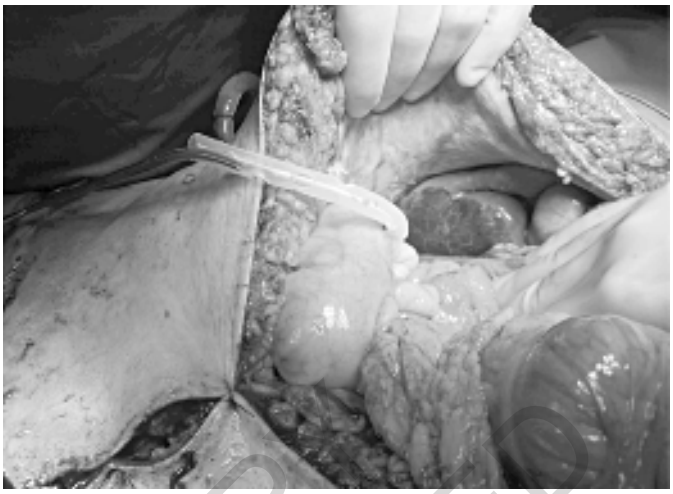

Fig. 2: Hemostasis with DTC, Tabotamp application, hemostatic glue (Evicel) and two laparotomic gauze (compression patch) in the splenic lodge.

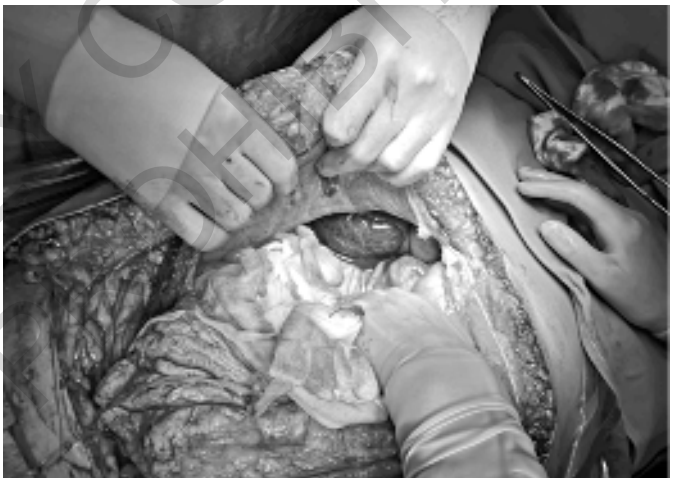

Fig. 3: Significant reduction in the volume of capsular hematoma of the right lobe.

appeared devoid of lesions without signs of bleeding. The hematoma of right lobe was still visible, but reduced in volume. On palpation of serum-haematic transudation, was repositionated three new laparotomic gauze, two over and one under hepatic lobe.
After 48 hours, hepatic depacking was carried. No evidence of pathological splenic fluid. Two other drains: suprahepatic (upper right) and Douglas (upper left) was applied.
Appared a significant reduction in the volume of capsular hematoma of the right lobe, as showed in Fig. 3.

Results

A diagnosis of hemoperitoneum and severe pre-eclampsia with liver and splenic bleeding was done and managed it with 3 xypho-pubic-laparatomy in different time with haemostatic packing.

Discussion

Spontaneous rupture of liver hematoma is a rare and potentially life-threatening complication of preeclampsia. Short interval between diagnosis and management may enhance the feto-maternal survival rate and prevent further morbidity or mortality.
In this case report, the patient underwent an emergency caesarean section and was managed with packing of hepatic and splenic hematomas and according to her haemodynamic clinical conditions was operated in different time.
The choice of laparotomy and hepatic packing has proved to be a viable option in patients with unstable vital signs and is feasible even in limited resource settings.
In this case, first of all the fetus was extracted, and then we managed with packing, operated in different time, a spontaneus ropture of liver hematoma (VII-VIII segments and of the sub-glissian) and a splenic haematoma, in woman, with severe pre-ecampsia.
The managed of bleendig area was done at time 0, 48 and 96 hours. When the last depacking was done, the liver haematoma was significant reduced, and there was no evidence of pathological splenic fluid.
The newborn was healthy, weighing 2.2 kg, in perfect cardiovascular and respiratory conditions.
At last check-up after 6 months, the abdomen ultrasound showed complete recanalization of the portal vein and normal resorption of hepatic hematomas.

Conclusion

Short interval between diagnosis and management may enhance the feto-maternal survival rate and prevent further morbidity or mortality.
The choice of laparotomy and hepatic packing has proved to be a viable option in patients with unstable vital signs and is feasible even in limited resource settings.

Riassunto

HELLP syndrom è associata a grave morbilità e mortalità materna e fetale [1]. Una complicanza rara e potenzialmente pericolosa per la vita è la rottura spontanea di un ematoma epatico. L'incidenza è di circa 1 su 45.000 nati vivi [2].
La letteratura tratta percorsi conservativi mediante embolizzazione dell'arteria epatica, oppure chirurgici con tamponamento dell'area sanguinante.
Questo studio mira a sfidare l'attuale know-how nei pazienti con rottura spontanea di un ematoma epatico, per differenziare i pazienti che richiedono tale terapia chirurgica specifica ed evitare errori durante le operazioni chirurgiche, al fine di interrompere la gravidanza con effetti benefici sulla madre e sul feto.
Questo studio mira ad andare oltre l'attuale know-how sul management pazienti affetti da rottura spontanea di ematoma epatico, offrendo spunti di differenziazione dei pazienti che richiedono chirurgica specifica al fine di evitare complicazioni su madre e feto.
In uno scenario di emergenza, presso Department of General Surgery, State Hospital - ISS – San Marino Republic Via Scialoja 47893 Borgo Maggiore, è stata ricoverata una donna di 37 anni a 35+4 settimane di gestazione per taglio cesareo d'urgenza dopo l'insorgenza di dolore all'ipocondrio destro.
La diagnosi di emoperitoneo e pre-eclampsia severa con emorragia epatica e splenica è stata effettuata e gestita con tamponamento degli ematomi epatici e splenici con 3 xifo-pubico-laparatomie in tempi diversi e tamponamento emostatico, considerando costantemente le sue condizioni cliniche. La scelta della laparotomia e del packing epatico è considerata un'opzione praticabile nei pazienti con segni vitali instabili ed è fattibile anche in contesti con risorse limitate. Il breve intervallo tra la diagnosi e la gestione può aumentare il tasso di sopravvivenza feto-materna e prevenire ulteriore morbilità o mortalità.
In questo caso, prima di tutto è stato estratto il feto, sono stati quindi applicati packing, in tempi diversi, (0, 48 e 96 ore) per la gestione della rottura spontanea dell' ematoma epatico (segmenti VII-VIII e del sottoglissico) ed un ematoma splenico. Quando è stato effettuato l'ultimo de-packing, l'ematoma epatico era significativamente ridotto e non c'erano prove di liquido splenico patologico. Il neonato era sano, pesava 2,2 kg, in perfette condizioni cardiovascolari e respiratorie.
All'ultimo controllo dopo 6 mesi, l'ecografia addominale ha mostrato completa ricanalizzazione della vena porta e normale riassorbimento degli ematomi epatici

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