Case Report

BROAD LIGAMENT HAEMATOMA FOLLOWING A VAGINAL DELIVERY IN PRIMIGRAVIDA

Nelofar Saleem[1], Habiba Sharaf Ali[2], Asma Irfan[3], Babar Afzal[4]

ABSTRACT

Broad ligament haematoma is a rare complication of a normal vaginal delivery. We report a 24 year old patient who developed this complication and was managed successfully.

KEY WORDS: Broad Ligament Haematoma, Vaginal Delivery.

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INTRODUCTION

Broad ligament haematoma is a rare complication of a normal vaginal delivery. It can be life threatening if not recognised and managed quickly as the patient can loose a large amount of blood in a short time. It has a 1:20,000 incidence[1] but a search on Medline / Medscape showed only one reported case.[2] No reported case was found in Pakistani literature (MEDLIP). We report a patient who developed this complication after a vaginal delivery and probably this is the first case being reported, nationally.

1. Dr. Nelofar Saleem, MBBS, FCPS
Consultant Gynaecologist,
Bilal Hospital, Rawalpindi.
2. Dr. Habiba Sharaf Ali, MBBS, MRCOG
Consultant Gynaecologist,
3. Dr. Asma Irfan, MBBS, FCPS
Consultant Gynaecologist,
4. Dr. Babar Afzal, MBBS, DA
Consultant Anaesthetist,
Bilal Hospital, Rawalpindi.

Correspondence

Dr. Nelofar Saleem, MBBS, FCPS
Consultant Gynaecologist,
13/3-D, PAF Complex,
Sector: E-9,
Islamabad - Pakistan.
E-mail: nelofarsaleem@hotmail.com

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CASE REPORT

A 24 year old, primipara, was brought to the emergency department after having delivered a live healthy baby girl through spontaneous vaginal delivery at a private clinic, six hours earlier. She was received by the medical officer in ER in a critical condition. She was semiconscious with severe pallor cold clammy skin, and dyspnoea. Her pulse was feeble and her BP was not recordable. She had abdominal distension. Her clothes and the bed sheet were blood soaked. An IV line was secured in each forearm and Haemaccel & Ringer's Lactate were rapidly infused and blood sent for cross matching.

An urgent call was sent to consultant gynaecologist who after examining the patient shifted her to the operation theatre for emergency evaluation and management. After passing N/G tube patient was given general anaesthesia. The uterus was palpable abdominally up to the umbilicus. A cervical tear was seen on the left side extending to the lower uterine segment. Multiple vaginal lacerations and a second degree perineal tear were noted. Uterine massage was done, after giving her 10 units of Syntocinon IV and adding 40 units to her infusion of Ringer's Lactate. The uterine cavity was filled with blood clots and pieces of

placenta, which were evacuated carefully. All the tears were stitched and uterine / vaginal packing done with sterile gauze soaked in Pyodine. Foley's catheter was retained in bladder. One thousand micrograms of Tab. Mesoprostal were placed in rectum.[3] Patient was given triple regime of intravenous antibiotics[3] (Gentamicin 80 mg eight hourly, Metronidazole 500 mg eight hourly & Ampicillin 500 mg six hourly) with Inj. Transamine, 1 Gm IV stat.

She was then shifted to the ICU for observation and further management. Infusions of Haemaccel and Ringer's Lactate and blood transfusion were continued. She was also advised to have 400 microgram of Tab. Mesoprostal rectally and Inj. Transamine 1 Gm six hourly in addition to IV antibiotics already advised. She was unable to maintain oxygen saturation and became tachypnoeic, so the anaesthetist decided to put her on ventilatory support. CVP line was also passed. Four units of Red Cell Concentrate and four units of Fresh Frozen Plasma were transfused. The condition of the patient did not improve and an internal bleed was suspected. Due to the unavailability of emergency ultrasound services the bleed was confirmed by passing a needle of 10 cc syringe in the right iliac fossa. Keeping in mind the possibility of a uterine rupture, consent was obtained from the husband of the patient, for hysterectomy, if needed. The Blood Bank was requested to arrange four units of Red Cell Concentrate and four units of Fresh Frozen Plasma to optimize her haematological parameters. Patient was taken to the operation theatre, anaesthetised and was opened by infra-umbilical midline incision. About 200-300 ml of blood stained serous fluid was found in abdomino-pelvic cavity. A haematoma measuring about 10 x 12 cm was found in the broad ligament on right side.

Fortunately the uterine wall was intact and no tear was found, so we decided to manage the patient conservatively because surgical intervention might have lead to hysterectomy and the risk of damaging the surrounding structures like ureter. This decision was taken to preserve her future fertility. There was no active bleeding from any site. A drain was kept in pouch of Douglas and abdomen was closed in layers. It was observed that the blood oozing from the operation site was not clotting which led to the suspicion of disseminated intravascular coagulation.

The academic workup including prothrombin time, activated partial prothrombin time, plasma fibrinogen levels and fibrinogen degradation products could not be completed due to financial constraints. Her pre-operative Haemoglobin was 4 Gm/dl with a platelet count of 130,000. Her liver & renal functions were within the normal limits. She remained in ICU on ventilatory support for next ten hours. During this time she was also started with Dopamine infusion as her BP had started falling. Due to excessive soakage of abdominal wound dressing it was changed frequently (8 times in about 48 hours). She started to improve gradually and was weaned off the ventilator after 10 hours. Her platelet count was repeated to monitor her DIC. It had fallen down to 3×10^9/litre. A total of twelve units of RCC, ten bags of platelets (to keep her platelet count above 50,000) and eight units of FFP were transfused during first 48 hours. One litre of fresh frozen plasma is recommended for every six units of blood transfused which equates to 4-5 bags of 200-250 ml of plasma to replace the lost clotting factors other than the platelets. The platelet transfusion was given to maintain the count $>50 \times 10^9$/litre.[4] Dopamine infusion was gradually tapered off. Uterine and vaginal packing were removed after 36 hours. Drain and N/G tube were removed after 48 hours. Foley's catheter was also removed after 72 hours. Patient was allowed oral fluids and semi solids gradually. She was shifted to her room after 72 hours and was discharged from hospital on 5th post-op day in stable condition.

DISCUSSION

Para genital haematomas are of two types. Supralevator (above the levator ani muscles) and infralevator. Supralevator haematomas spread upwards and outwards beneath the

broad ligament. About a third follows spontaneous vaginal delivery, caesarean section and forceps delivery.[1] Fifty percent of these are recognised immediately while rest are discovered after about 24 hours. The symptomatology depends upon the size and rate of haematoma formation. Resuscitation, volume replacement and surgical exploration are the key steps in its management. For broad ligament haematomas conservative management is recommended.[5] When all medical and less radical surgical interventions have failed in the management of post partum haemorrhage secondary to uterine causes, emergency hysterectomy is the last resort.[4] The causes of post partum collapse in our patient were multiple like uterine atony, genital tract lacerations and perineal tear as well as broad ligament haematoma. The conservative management in a young primipara was an appropriate decision keeping in mind the preservation of her future fertility and psychological well being. Good antenatal care and proper management of delivery, anticipating the possible problems, preparing for them and running a well coordinated delivery suite is the mainstay of coping with obstetrical emergencies.[6] The paucity of available literature on this subject warrant that this condition is kept in mind as an important possible cause of post partum haemorrhage and its significance emphasised comprehensively upon our younger colleagues.

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