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Pregnancy with Abdominal Trauma

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Introduction

Blunt injury to the abdomen may cause massive internal hemorrhage. Besides causing injury to liver, spleen, gut, etc., in a pregnant woman, it may cause accidental hemorrhage and even fetal death. Hence any abdominal trauma in a pregnant woman must be quickly evaluated and promptly managed.

Case Report

A 22 year old primigravida was brought to the emergency department on 8th March, 2002 with complaints of acute pain in abdomen and dizziness following injury to the abdomen 3 hours back. She had amenorrhoea of 5 months and was working at her farm when her dupatta got entangled and wound up in the thresher machine. The cloth while being pulled away across her abdomen made abrasions on the abdominal wall across the umbilicus. She did not get any of her body part in the thresher. After that, she developed acute non-colicky pain all over the abdomen. She had vomitting and was having spells of dizziness. There was no vaginal bleeding.

On examination, she was pale and conscious with pulse rate of 120 minute, BP - 70 mm Hg. Respiration rate of 22 minute. There was a superficial abrasion, 20 cm long and 5 cm wide, across her abdomen in the umbilical area. There was guarding and rigidity over whole of the abdomen. The uterus was 24 weeks in size, tense and tender. External ballotment could not be elicited. Her hemoglobin was 6gm%. Immediate resuscitative measures for hemorrhagic shock were initiated. Blood for transfusion was arranged. Ultrasonography revealed massive hemoperitoneum and gravid uterus with fetus of 20 weeks with no fetal heart activity. Placenta was fundal grade 1 and showed retroplacental hemorrhage. Our department does not have facilities for documentation of ultrasonographic findings during non-office hours. Suspecting an associated organ injury as well, emergency laparotomy was undertaken. On opening the abdomen, there was frank blood in the peritoneal cavity. Liver, spleen pancreas were intact. Intestines and mesentery were explored. There was two 5 cm long tear in the pelvic mesocolon which were bleeding. Sutures were applied and hemostasis was achieved. Uterus was tense. Uterovesical fold was opened transversely. Through a transverse incision above the isthmus of the uterus, a stillborn male fetus of about 20 weeks was extracted. Placenta was lying separated. About 500 grams of retroplacental clots were removed. Uterus was closed in two layers. Uterovesical fold was closed. Abdominal lavage was done and abdomen closed in layers. Two units of blood were transfused intra-operatively. The woman stood the operation well and was discharged on the ninth postoperative day, on 17th March, 2002. She did not turn up for any follow up and was not seen again.

Discussion:

Accidental injury complicates approximately 6% to 7% of all pregnancies. Most injuries are relatively minor. However, some can have devastating consequences for both the mother and the fetus. In a recent study of 85 pregnant women suffering varying forms of trauma during pregnancy, 9.4% had some degree of abruptio placental. Another study examined 205 cases of non-catastrophic trauma during the last half of pregnancy. It found that pregnancy-related complications occurred in 8.8% of them. The most common complication was premature labor. However, abruptio placenta, fetal injury and fetal death were also reported", Serious motor vehicle related injuries in a pregnant woman can cause placental abruption in 1 to 5% of minor injuries and 20 to 50% of major injuries".

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Accidents which initially appear relatively minor can cause serious injuries which can threaten the lives of both the mother and the fetus. The most common cause of maternal death in motor vehicle accidents is head injury while that of fetal death is maternal death". Fetal death with maternal survival is typically due to placental separation.

The pregnant woman with trauma should be approached in the same way as a non-pregnant one. Maternal stabilisation is the primary concern in the pregnant trauma victim, since maternal shock is associated with up to 80% fetal mortality. Rapid resuscitation and stabilisation should proceed as with the non-pregnant patient with the following exceptions: (1) positioning the uterus to the left and (2) aggressive fluid resuscitation (often up to 50% more than that needed in a non-pregnant patient).

Several special obstetrical problems can occur to both mother and fetus. The assessment and monitoring of these specific problems should be attended early by an obstetrician. Only a standardized, careful but rapid approach can reduce morbidity and mortality in pregnant women with trauma.

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