



## Case Report

# Emergency Hysterectomy in a Rural Set Up

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## Abstract

*Uterine rupture is a life threatening condition for the mother as well as the fetus. It is a public health problem in developing countries. It occurs mostly in a previous Caesarian Section patients or scarred uterus. But it can also occur in a non scarred uterus due to other causes. It is not always easy to diagnose when there is no facility for ultrasonography. It is diagnosed by clinical signs in a rural set up.*

## Introduction

Obstetrics emergency is defined as a life threatening condition pertaining to pregnancy or delivery that requires urgent medical intervention to prevent death of women.<sup>1</sup> Obstetrics emergencies are the leading cause of maternal mortality worldwide and particularly in developing countries where lack of transport facilities, financial constraints due to poverty, illiteracy, ignorance, inadequate health infrastructure and meagre blood bank facilities combine to magnify the problem.<sup>2,3</sup> Lack of health care personnel also contribute to this problem. Vidhyadhar B et al proved that unregistered women especially in rural and tribal areas suffer from obstetrics emergencies much more than their urban counterparts.<sup>4</sup>

## Case

45 years old patient, Gravida7 Para6 post dated pregnancy was admitted to Champhai District Hospital (Mizoram, India) in 2018, for delivery. She was unbooked. She came to hospital from very far flung village as she did not deliver on her expected time. She did not give any history of any disease or allergy. In her previous pregnancies she delivered four children at home, 2 children in a community health center. All of them by normal vaginal deliveries without any complication. Her last childbirth was 1 and a half year back. She was hemodynamically stable without abdominal tenderness, etc.

Due to her grand multiparity, we waited for her labour pain to develop. Once she developed labor pain, we waited the pain to increase and cervical dilatation, without using any drugs for augmentation of labor. But after waiting for

around 12 hours and no progress in labor, labour was augmented with Inj.Syntocinon 2 units @ 4 drops per minute. This was going on for 1 hour and there was slight increase in dilatation so we were expecting a progressive stage of delivery. But after waiting for 2 hours, patient complaint that there was abdominal cramps not like labour pain and her BP dropped and there was increase in her heart rate. On auscultation, no fetal heart sound was heard and there was a bleeding per vaginum, but scanty.

There was no facility for sonography in our hospital that time. The patient needed emergency operation /laparotomy. But the problem in our hospital was that there was no Obstetric Surgeon at that time. The doctor on emergency / casualty on call was supposed to manage on any emergency case in the whole hospital. The ENT surgeon was on duty that particular night. So the ENT surgeon explained to the relatives of the patient that their patient needs emergency laparotomy and there is no time to lose. Even though there is no Obstetric surgeon in our hospital, with the help of some other doctors, she had to manage the patient. The nearest referral center is the capital city which is 10 hours drive from our center, even if they take the shortest route. So it is not possible to refer this patient in order to save her life.

As there is a blood bank in our hospital and fortunately there were matched blood stocks available, blood transfusion was started with oxygen by nasal prongs. After the relatives give consent for surgery, the patient was rushed to the OT and General anesthesia was given after after pre-oxygenation with 100% oxygen. Inj.Propofol 80mg was given with Succinylcholine 100mg and rapid sequence induction was done. Maintenance was done with Inj Atracurium and Inj Midazolam as there was no inhalational agent to be given for sedation at that time.

The availability of General Surgeon was a life-saving for such a patient. The general surgeon took up the case with the ENT surgeon. When the abdominal wall was opened, the fetus was lying in

the abdomen. The fetus was already dead. Even though resuscitation was given, we could not save the baby. There was an anterior uterine rupture. Repair of such tear was not possible as the torn was very bad. Emergency hysterectomy was done. The hemodynamics was stable throughout the surgery and 2 units of blood was given intraoperatively.

After 2 long hours of surgery, the surgery was over. The patient was reversed from general anesthesia inside the OT and the recovery was smooth. Hemodynamically stable and patient was conscious. As there is no ICU of HDU in our hospital, patient was shifted to Post Operative ward of OG department.

The patient was improving slowly with antibiotics and analgesics etc. 2 units of blood was given the next day after Hemoglobin was checked and found it was on the lower side. After 1 week the patient was discharged from our hospital without any specific complaint.

### Discussion

Since the breakaway of the speciality of Obstetrics and Gynecology from the surgical speciality and the formation of British College of Obstetrics and Gynecology in 1929, there has been monumental increase in surgical procedures that are related purely to the female reproductive tract.<sup>5</sup> Elective operations are scheduled operations where patients are well prepared prior to surgery and as such have better outcome when compared to emergency operations where morbidity and mortality are higher. Most of the emergencies present at odd times when less experienced personnel are on ground and patients are not optimally prepared for the operation as such, the outcome is poor with resultant increase in morbidity and mortality.<sup>6</sup>

Uterine rupture is a clinical diagnosis and there is a high index of suspicion by the healthcare provider. Risk factors for such rupture may include previous uterine scar, short birth spacing and use of uterotonic (oxytocin/prostaglandins) medications.<sup>7</sup>

Despite a general aversion to hysterectomy by the women in our society, these procedures were undertaken in a desperate attempt to save life. Presence of an experienced obstetrician is important to make an early decision to operate before the patient's condition is extreme and to provide the technical skills required to minimize morbidity and mortality.<sup>8</sup>

Uterine rupture is tearing of the uterine wall during pregnancy or delivery. Rupture of a previously unscarred uterus is usually a catastrophic event resulting in death of the baby, extensive damage to the uterus and sometimes even maternal death from blood loss. The damage to the uterus is sometimes beyond repair and a hysterectomy is required.

A major factor in uterine rupture is obstructed labor. Black African women have a high incidence of contracted pelvis. Contracted pelvis women were found to be at high risk for obstetric complication. Other risk factors for uterine rupture include multiparity and particularly grand multiparity, the risk of uterine tonic drugs to induce or augment labor, placenta percreta and rarely intrauterine manipulation such as internal podalic version and breech extraction. In less and least developed country, uterine rupture is an important cause of maternal mortality accounting for as many as 9.3% of maternal death in one Indian study. Ruptured uterus is the only cause other than sepsis to have increased since the previous reports possibly due to the widespread use of misoprostol in uncontrolled dosages for labor induction.<sup>9</sup>

In our case also, multiparity and augmentation with syntocinon must be the main cause for uterine rupture. The absence or non-availability of obstetric and gynecology specialist is one cause.

In the absence of gynaecologist, a medical officer having casualty on-call duty had to look after the labor room, who has not much experience with the timing for CS. Moreover, no sonology facility was available at that time in our set up. The diagnosis was made purely on clinical signs with very inexperienced medical officer on duty. But the

availability of general surgeon and availability of anesthetist with availability of blood in blood bank had enable us to perform the surgery and therefore save a life of the patient, even though we could not save the baby.

Therefore, it is clear that even a non gynaecologist surgeon can also perform obstetric emergency surgery to save a life. If decision for surgery had been made a little early, we might have saved even the baby.

Revicky Vladimir et al had stated that the inconsistent signs and the short time in prompting definitive treatment of uterine rupture made it a challenging event. Delay in definitive therapy cause significant fetal morbidity.<sup>10</sup>

### Conclusion

Maternal mortality has been one of the millennium developmental goals (MDG5) and although progress has gradually been made in reducing maternal mortality, action is needed to meet SDG 2030 target.<sup>11</sup>

Maternal and fetal outcome in obstetrics emergency is adversely affected by delay at various levels, resulting in adverse outcome. According to Vidhyadhar et al (2012) Govt of India, through National Rural health Mission has launched an emergency Obstetrics care (EMOC) programme with the aim to train the Medical Officers and upgrade the infrastructure at PHCs, so that common emergencies are dealt at peripheral level and emergencies of serious nature get first aid before shifting to higher centers.<sup>12</sup>

It is difficult to judge the competence and clinical practice level of a healthcare worker based on job title alone. Other factors influence performance such as availability of equipment, skills of other co-workers, workload, feedback, leadership and access to clinical guidelines.<sup>13,14</sup>

Most recent studies indicate that the quality of emergency obstetrics surgeries is not at risk when performed by a less skilled health worker. This is confirmed by a meta-analysis performed by Wilson et al which included some older studies comparing the outcomes of caesarian delivery

performed by clinical officers with those performed by medical officers.<sup>15</sup>

So in our case, emergency hysterectomy was done by non obstetrics and gynecology specialist and saved the patient's life. If the patient had been referred to the next higher center, the patient would not have survived.

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