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**A Study Of The Main  
Factors Affecting The  
Incidence And Outcome  
Of Ruptured Uterus**

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**Abstract**

*A review of 3777 deliveries was made over a period of 5 years; 33 cases of ruptured uterus were recorded during the review period.*

*High parity and injudicious use of Oxytocic drugs by unskilled personnel were the main contributory factors.*

*The incidence of ruptures uterus was 8.8 per thousand deliveries with only one rupture in the hospital. The incidence increased over the 5 years from 1 rupture in 199 deliveries in 1981 to 1 in 76 deliveries in 1985.*

*Foetal mortality was 91%.*

**Introduction**

Rupture of the uterus is a serious condition with a high maternal and perinatal mortality. In the developed countries it is a rare problem with an incidence of 1 in 2500 to 1 in 4000 deliveries. The incidence is higher in the developing countries. In our country the exact incidence is not known being more common in the rural than the urban areas.

**Material and Methods**

A total of 33 cases of ruptured uterus were recorded over a period of 5 years in Gynae "A" Unit, Hayat Shaheed Teaching Hospital, Peshawar between 1981 and 1985. Information was obtained from the obstetric record of the Unit.

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The exact age of majority of patients was not known and thus calculated from the approximate age of manarche, the time interval between manarche and marriage and the age of the eldest child.

**TABLE-I**  
**INCIDENCE OF RUPTURE UTERUS**

| Year | Total Deliveries | Admitted with Rupture | Hospital Rupture |
|------|------------------|-----------------------|------------------|
| 1981 | 598              | 3                     | nil              |
| 1982 | 627              | 6                     | nil              |
| 1983 | 733              | 3                     | nil              |
| 1984 | 905              | 8                     | 1                |
| 1985 | 914              | 12                    | nil              |

### Result

The incidence of ruptured uterus was found to be 8.8 per thousand deliveries in this study. The incidence increased over the years as shown in Table-I. This is probably due to the influx of the Afghan refugees. Out of 33 cases, 12 were Afghan refugees. There were two maternal deaths; both the patients were Afghan refugees. Foetal mortality was high being 91 percent.

The main causes of rupture uterus in this study are shown in Table-II. Majority of the patients were over 35 years of age. Only 8 patients were under 35 years of age. 25 patients were grand multi-parous (more than 5 children). Previous operation and injudicious use of oxytocic drugs were contributory factors. Three patients had previous lower segment caesarean section and fifteen cases were administered Oxytocic drugs at home. One patient had myomectomy and two patients had previous diagnostic D&C. One patient had transverse lie and cord prolapse. The patient who had a hospital rupture had a twin pregnancy. For the delivery of the second twin, internal version and breech extraction had been performed.

TABLE-II  
CAUSES OF RUPTURED UTERUS IN THIS STUDY

| Causes                                      | 1981  |        | 1982  |        | 1983  |        | 1984  |        | 1985  |        |
|---|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
|   | Preg. | Labour | Preg. | Labour | Preg. | Labour | Preg. | Labour | Preg. | Labour |
| Scar in Uterus                              |       |        |       |        |       |        |       |        |       |        |
| (i) Previous C. Section                     | -     | 1      | -     | -      | -     | -      | -     | 1      | -     | 1      |
| (ii) Previous Myomectomy                    | -     | -      | -     | 1      | -     | -      | -     | -      | -     | -      |
| No Scar in Uterus                           | -     | 2      | -     | 5      | 1     | 2      | -     | 8      | -     | 11     |
| Oxytotic Drugs                              | -     | 2      | -     | 4      | -     | 2      | -     | 3      | -     | 4      |
| Previous Diagnostic D&C                     | -     | -      | -     | 1      | 1     | -      | -     | -      | -     | -      |
| Internal Version                            | -     | -      | -     | -      | -     | -      | -     | 1      | -     | -      |
| Grand Multiparous<br>(more than 5 children) | -     | 2      | -     | 5      | -     | 2      | -     | 7      | -     | 9      |
| Obstructed Labour                           | -     | -      | -     | 2      | -     | 1      | -     | 3      | -     | 2      |

Note: Many patients had more than one cause of ruptured uterus.  
Preg. = Pregnancy

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Rupture uterus cases due to obstructed labour were eight in number. One of these cases was shifted from an Afghan Hospital where Forceps and Vacuum extraction had been tried unsuccessfully. Three of the babies had hydrocephalus.

Complete rupture numbered twenty one, while incomplete cases were twelve in number.

Hysterectomy was performed in twenty seven cases. Two cases had repair with tubule legation, while four cases had repair only.

### **Discussion**

The factors analysed in this study are well known, Age, parity, previous operative scar in the uterus and the unskilled use of oxytocic drugs are of utmost importance.

The important contributory factors in our part of the world are lack of antenatal care, ignorance and lack of education. There are insufficient medical facilities available to the patients, and certain areas have no medical facilities at all. A certain fear of the hospital also plays an important part as many of these cases come to the hospital as a last resort.

Another problem in our country is unchecked practice by untrained paramedical staff, which gives the patient a false sense of security. Patients are made to believe that they are being looked after by well trained doctors. The unskilled use of oxytocic drugs by them is an important cause of ruptured uterus in this study.

Our overall incidence of 1 in 114 deliveries or 7 in thousand deliveries is much higher as compared to some other published studies in this part of the world. A 10 year study from Ganga Ram Hospital, Lahore (1966-1977) showed an incidence of 1 in 920 deliveries or slightly more than 1 per thousand deliveries. Our study in Hayat Shaheed Teaching Hospital has also shown a rather sudden rise over the years from an incidence of 1 in 199 deliveries (0.5%) in the year 1981 to 1 in 76 deliveries (1.3%) in the year 1985. This rise is probably due to an increasing number of Afghan refugees

settling in Peshawar.

A one year study from Lady Reading Hospital, Peshawar (1977-1978) shows a figure of 1 in 146 deliveries which is similar to ours.

A 5 year (1973-1977) study from Kasturb Hospital, New Delhi showed an incidence varying between 1 in 1600 to 1 in 550 deliveries. This is very low compared to our incidence.

Our maternal mortality is 2 out of 33 cases or 6.1%. It is very low as compared to the figures of 23% maternal mortality obtained from Ganga Ram study and 23% from New Delhi. For prevention and improvement of our results, we need to improve the general education and awareness of the people and the socio-economic status of the population.

Provision of good antenatal care to all pregnant women is important. Not only we need to have more hospital and basic health units but also the standard of the existing hospitals should be improved.

Although there are many small hospitals working for the Afghan refugees, majority can deal with only minor problems and the main load is on the two main hospitals in the province. The reason for this situation is that the other hospitals are not well equipped or have no trained staff.

Transport is also a problem for many patients. If transport can be provided to even some of the areas, the mortality and morbidity can be considerably reduced.

Blood transfusion is another very big problem. All of these patients need blood transfusion and many need massive blood transfusion but blood is not being donated. The general public and relatives of the patients are afraid to donate blood due to ignorance and misinformation from others. This needs to be advertised and explained to the general public on radio and television.

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