# Obstetric Out Come of Cases Referred to a Tertiary Care Hospital after Trial of Labour

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**Childbirth is a natural process but with its' inherent risk of complications. Skilled birth attendant can provide timely emergency obstetrics services. Objective of this study was to analyze fetomaternal outcome of cases referred to our hospital after trial of labour and to identify factors, which could prevent adverse obstetric outcome. This study was conducted at Obstetrics & Gynae Unit II Sir Ganga Ram hospital, Lahore. One hundred patients who were admitted through emergency after trial of labour by TBA, LHV or doctors at home or private clinics were analyzed for fetomaternal outcome. Out of hundred patients in study group 49 were Primigravida while 10 were grandmulti. About 90% of patients never had any antenatal checkup. Maximum patients (94%) were under care of TBA & LHV. 54 patients had already prolong labour out of which 38 cases were of obstructed labour. Five patients had ruptured uterus. 49 patients were delivered by caesarean section while 29 had forceps delivery. Laparotomy was carried out in four patients due to ruptured uterus out of which two had hysterectomy. There was one maternal death due to ruptured uterus. Post partum hemorrhage occurred in ten patients, while 12 had puerperal pyrexia. Regarding perinatal outcome there were 23 stillbirths, while 45 had Apgar score below 5 at five minutes. Ten babies died in first 12 hours. This study concludes that complications of labour if not timely diagnosed and rectified results in adverse fetomaternal outcome. Provision of skilled birth attendant at doorstep will be an ideal solution.**
**Key words: Trial of labour. Ruptured uterus. Obstructed labour. Perinatal death**

Pregnancy and childbirth is a physiological process. Globally 211 million women become pregnant every year[1]. In spite of being a natural process, each parturient is a potential candidate of adverse fetomaternal outcome. In industrialized countries special care during pregnancy and childbirth has almost overcome this problem but situation is very alarming in developing world.

In Pakistan only 43% of pregnant females are attended by trained personal and 24% deliveries are conducted by skilled birth attendant[2]. Irrespective of any risk factor during pregnancy, all women need good quality maternal health services to ensure good outcome. These services should be accessible, affordable, effective, appropriate and acceptable to the women, who need it[3]. Many a time unpredictable complications develop during time of delivery, which can be only dealt with by skilled birth attended.

The aim of this study was to analyze fetomaternal outcome of cases referred to our hospital after trial of labour and to identify factors, which could prevent adverse outcome.

**Subjects and methods:**

A descriptive study was conducted over a period of one year at Sir Ganga Ram hospital Lahore. It is a large tertiary care hospital attached with Fatima Jinnah medical college. The hospital has an annual delivery rate of 14000 and provides high-risk obstetrics care to a large population.

A study of hundred patients who were admitted through emergency after a trial of labour outside hospital by some TBA (Traditional birth attendant), LHV (Lady health visitor ), nurse or doctor at home or at some clinic was carried out.

Thorough history was taken regarding trial of labour, duration of trial and any medication given. Patients were managed according to individual case assessed by senior registrar. Fetomaternal evaluation was the basis of further plan. Adequate hydration, analgesia, broad-spectrum antibiotics, arrangement of cross-matched blood, appropriate mode of delivery in the presence of pediatrician was the main stay of management. Patients were observed for any postpartum complication

**Results:**

Out of hundred subjects in the study group 49 were Primigravida, while 10 were grand multi (Table I). About 90% of the patients never had any antenatal check up. Nine patients were having bad obstetric history while there was history of previous one caesarean section in 19 and 7 had previous two caesarean sections. Labour was induced in 58 subjects and the main drug used was syntocinon (Table II) As far as level of care during labour was concerned maximum (94) patients were under care of TBA and LHV. (Table II) and 54 subjects had already more than 12 hours trial of labour before they were referred to our hospital.

Out of 54 subjects who had prolong labour, 38 patients were having obstructed labour, five had ruptured uterus and 6 had neglected transverse lie at admission (Table III)

Only 18 patients had normal vaginal delivery while 49 had caesarean section and 28 had forceps delivery. Four patients had laparotomy due to ruptured uterus out of which two had hysterectomy. One patient of ruptured uterus was brought in critical condition and died before resuscitation.

Table I: Obstetric characteristics of subjects

| Parameters | n= |
|---|---|
| Parity | |
| Primigravida | 49 |
| $P_{1-5}$ | 41 |
| $>P_5$ | 10 |
| Past Obstetric History | |
| BOH | 9 |
| Previous C/S | |
| Previous I | 19 |
| Previous II | 7 |

BOH: Bad Obstetric History C/S: Caesarean section

Table II: Details of labour

| Parameter | n= |
|---|---|
| *Onset of Labour* | |
| Spontaneous | 42 |
| Induced | 58 |
| Syntocinon | 48 |
| PG $E_2$ | 2 |
| Combined | 8 |
| Level of Care | |
| TBA | 74 |
| LHV | 20 |
| Doctor | 6 |
| Duration of Trial before Ref | |
| < 12 hours. | 46 |
| 12-24 hours. | 39 |
| > 24 hours. | 15 |

PGE2: Prostaglandin $E_2$ Ref: Referral

Table III: Presentation on admission

| Presentation | n= |
|---|---|
| Ruptured Uterus | 5 |
| Impending Rupture | 4 |
| Obstructed Labour | 38 |
| Prolonged Labour | 54 |
| Neglected Transverse Lie | 6 |
| APH | 5 |
| PROM | 6 |
| Septicemia | 2 |
| Compound Presentation | 1 |

PROM: Preterm Rupture of Membranes, APH: Ante partum Hemorrhage

As revealed by Table IV many patients had multiple problems during post delivery period. Ten patients had immediate PPH; three cases were of retained placenta. Twelve subjects had puerperal pyrexia out of which five were due to wound infection, three had puerperal sepsis and five had UTI.

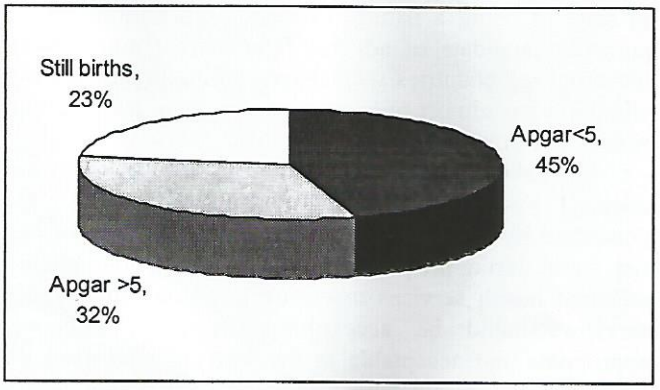
Regarding perinatal out come 23 babies were stillborn while 45 were having Apgar score below 5 at five minutes and required admission in nursery. Majority of the babies (53) weighed between 3-4kg.Ten were below 2.5, twenty-eight were between 2.6-3kg and eight were above 4kg. Ten babies died in first twelve hours and these deaths were due to severe asphyxia, sepsis and prematurity

Table IV: Maternal morbidity in study group

| Morbidity | n=- |
|---|---|
| Ruptured Uterus | 5 |
| Obstetrical Hysterectomy | 2 |
| PPH | 10 |
| Retained Placenta | 3 |
| Cervical Tear | 13 |
| Vaginal & Perineal Injuries | 4 |
| Puerperal Pyrexia | 12 |
| Septicemia | 2 |
| Pelvic Infection | 3 |
| Wound Infection | 5 |
| Urinary Tract Infection | 5 |

PPH: Postpartum Hemorrhage

Fetal outcome




**Discussion:**

This study reveals that unskilled birth attendant has strong correlation with poor fetomaternal outcome. Presence of health worker with midwifery skills at delivery is now seen as one of the most critical intervention for making motherhood safe.[4]

There is a clear need to create awareness regarding obstetric complications through community based health educational intervention aiming to promote early recognition of the obstetric emergency at the household level and also to create a demand of safe obstetric practices[5].

Obstructed labour was in 38% of cases in our study, while it was 24.2% in a study at Nigeria[6]. Timely diagnosis of malpresentation, disproportion and slow progress of labour can prevent this catastrophe. Caesarean

section rate was very high in these subjects as heroic attempts of vaginal delivery can be disastrous for patients.

In our study rupture uterus was found because of mismanaged labour similar to study of Khan S[7]. We lost one mother due to this catastrophe, which was avoidable if labour was managed properly. Studies reveal that Pakistan is among the countries having highest mortality, almost three deaths occurring every hour [8] and main reason is lack of prompt emergency obstetric care services.

Perinatal mortality was very high in our subjects following prolonged labour as is consistent with data from West Africa Bangladesh & Guatemala[9,10,11,12].

Our study concludes that complications of labour if not identified timely are a major contributory factor for adverse fetomaternal outcome. Provision of trained personal at the doorstep would be an ideal solution. TBA has a major role in management of pregnancy & childbirth in our setup so special practical training should be arranged for them. Trained midwives should replace TBAs' gradually. Health care providers should be trained in early detection of high-risk cases and timely referral. There should be referral linkage from primary centers to secondary & tertiary care centers. This will lead to appropriate management of many problems and serious maternal and perinatal morbidity and mortality can be minimized.

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