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TRANSVERSE LIE;
PREDISPOSING FACTORS, MATERNAL AND PERINATAL OUTCOME

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ABSTRACT... Transverse lie is dangerous not only to fetus but may endanger the life of mother if timely intervention is not done. Good antenatal care is of tremendous importance for proper management of transverse lie. **Objectives:** 1). To determine the predisposing factors to transverse lie. 2). To find out maternal and perinatal outcome in transverse lie. Facts were analyzed to find out the avoidable factors which make the maternal and perinatal outcome worse. **Setting:** Gynae and obstetric unit-II DHQ Hospital Faisalabad. **Study Design:** It was a descriptive study. **Duration:** Six months from 15th September, 2006 to 15th March, 2007. **Materials and methods:** Sixty cases of transverse lie were included in this study. These sixty patients were analyzed in great details, regarding predisposing factors, clinical features, intrapartum and postpartum management including the maternal and perinatal outcome. **Results:** Predisposing factors were found in 42% of the primpara but in only 34% of the multipara. The mode of delivery was surgical and lower segment caesarean section was undertaken in 80% of cases. Maternal outcome in order of frequency were difficult surgery in 23.3%, obstructed Labour in 15%, delayed recovery from anaesthesia in 3.3% and uterine rupture in 1.6%. Fetal outcome in order of frequency were intrauterine death in 18.3%, hand prolapse in 20% and cord prolapse in 8.9%. **Conclusions:** Known predisposing factors to transverse lie withstand a closer and more accurate assessment of their incidence. The maternal and perinatal outcome can be improved by early diagnosis during antenatal care and hospital delivery, without any delay.

Key words: Transverse lie, Multiparity, Maternal mortality.

INTRODUCTION

Transverse lie occurs when the long axis of the fetus is perpendicular to that of mother. The incidence in 0.3% at term[1]. The predisposing factors to transverse lie are multiparity, placenta previa, contracted pelvis and uterine myoma[2,3].

The diagnosis of transverse lie is suspected when fundal height is less than expected, fetal head lies in iliac fossa and fetal heart rate auscultated near umbilicus.

Patients in transverse lie should not be allowed to labour because of risks of uterine rupture or cord prolapse[4]. Maternal deaths are due to hemorrhage, infection and difficult surgery. In fetus there is risk of cord prolapse, intrauterine death and traumatic delivery[5].

It is usual to carry out a transverse lower segment incision, although a vertical lower uterine incision may be valuable when these is uncertainty with regard to the position of fetal back[6]. For optimal results, there is need of early diagnosis, skilled assessment and planed delivery by optimal route and by the experienced obstetrician. Operative delivery by caesarean section is mandatory for the majority of cases[7].

Successful management depends upon the timely intervention and caesarean section has preference over destructive procedures.

MATERIALS & METHODS

Sixty patients admitted in emergency and through outdoor with transverse lie were evaluated by history and examination.

These sixty patients were analyzed in great details, regarding predisposing factors, clinical features, intrapartum and postpartum management, including the maternal and fetal outcome.

RESULTS

During Six months of study, there were 2126 deliveries in obstetrics and gynecology unit of D.H.Q Hospital, Faisalabad.

Table-I.

Parity	No. of cases	%age
Primi gravida	12	20
Parity below five	36	60
Parity above five	12	20

A greater incidence was seen in the multipara.

Sixty patients presenting with transverse lie were included in this study. 12 patients were excluded due to prematurity and medical disorders.

There were fifty five (91.6%) un-booked and only five (8.3%) were booked cases Regarding predisposing factors, multiparity was found to be most common factor as 48 cases (80%) were multipara. However other predisposing factors occurred more frequently in primiparas.

Table-II.

Predisposing factor	No. of patients	%age
Multiparity	48	80.00
Placenta previa	08	13.30
Contracted pelvis	08	13.30
Uterine anomalies or myoma	04	6.60

Regarding their management all patients had operative delivery – lower segment caesarean section was undertaken in majority i.e. 48 (80.1) of cases. Regarding maternal outcome, there was no maternal death, while morbidity was observed in 24 patients. Out of 24 patients, 7(15%) had obstructed labour- obstructed labour had a significant relationship with IUD (0.028), two (3.31%) patients had delayed recovery from anesthesia.

In 23.3% (n:14) patients, the maternal morbidity was in the from of difficult surgery.

Perinatal outcome was not very promising as 11 (18.3%) cases were received with intrauterine death. Out of these 11 cases, five had obstructed labour. There were 49 live births fetal loss after caesarean was five. All of them had poor APGAR score at birth, three (5.11%) patients had both hand and cord prolapse, in these cases intrauterine death was 100% surgical trauma or fracture did not occur in any of the fetus.

DISCUSSION

Transverse lie as such is not associated with poor maternal and fetal outcome but once it becomes neglected transverse lie, there are serious consequences for both the mother and the fetus. This clearly shows the importance of good antenatal care for proper management of transverse lie which would provide the opportunity for early diagnosis and hence prevention of neglected cases of transverse lie.

Table-III.

Mode of procedure	No. of patients	%age
Emergency CS	54	90.6
Elective CS	05	8.3
Caesarean hysterectomy	01	1.6

CS: Caesarean Section

Table-IV.

Maternal outcome	No. of patients	%age
Obstructed labour	07	15
Ruptured uterus	01	1.6
Difficult surgery	14	23.3
Anesthesia	02	3.3

Table-V.

Perinatal outcome	No. of cases	%age
IUD	11	18.3
Cord prolapse	05	8.3
Hand prolapse	12	20.0
Cord and hand prolapse	03	5.0
Surgical trauma	-	-

IUD: Intrauterine death

In our study majority was emergency admission reflecting poor antenatal care.

The relative contribution of predisposing factors to transverse lie differs in various published series[8,9]. Multiparty is the predominant predisposing factor. In our

study, multiparity was a predisposing factor in 80% of cases, and in fact a high incidence of transverse lie in a given population may reflect a tendency to multiparty.

Laxity of the abdominal wall with poor myometerial tone may be the possible explanation[10].

The incidence of placenta previa in our series was 13.3% comparable to that in other series 16% in 2001 in Faisalabad[8]. Placenta Previa discourage engagement of a fetal pole so predispose to transverse lie.

In our studies, there were 13.3% cases of contracted pelvis, which was higher to that reported by Gemmer[9]. Perhaps the higher incidence in our studies was due to environmental factors which caused pelvic anomalies in our population.

Although External Cephalic Version (ECV) reduces the rate of caesarean section for transverse lie to 50%, in our studies, none of the patient underwent ECV due to late presentation.

In our studies, majority of the patients were not under medical supervision and no ultrasound was carried out during the third trimester. So only 8.3% patients had elective caesarean section and 90.6% had emergency caesarean section. Khattak also reported that 66.7% of cases of transverse lie had emergency caesarian section[12].

Regarding maternal outcome, there was no maternal death in our studies while hunain (2001) reported one maternal death[8]. Transverse lie during labour puts the mother to risk factor like prolonged labour which leads to infection, obstructed labour, uterine rupture, hemorrhage and emergency anesthetic complication[13]. Even with the best of care morbidity is increased because of the frequent association with placenta previa, obstructed labour and the necessity for emergency operative procedures.

In our studies 15% cases had neglected transverse lie, while Randrianantoanina recorded 54 cases during two year in 2007 in Madagascar[14]. In our studies there was one case of rupture uterus for which emergency hysterectomy was performed. Thus transverse lie if not diagnosed and managed properly can lead to uterine rupture with life threatening maternal and fetal compromise[15].

Regarding perinatal outcome, perinatal mortality was found to be 26% in our study. 18 were still birth and five babies expired after CS during their stay in hospital.

However only three perinatal deaths were recorded which occurred during the period of hospital stay of patients. This may underestimate the true perinatal mortality. In neglected transverse lie, prolapse of an arm or umblical cord is likely to occur with resultant fetal hypoxia and death[16].
The dignosis to delivery interval is an important determinant of perinatal outcome in cord prolapse[17].

CONCLUSIONS

The main corner stone of proper management of transverse lie lie in provision of good antenatal care. The maternal and fetal outcome can be improved by early diagnosis during the antenatal period when associated risk factors such as placenta previa could be diagnosed. Delivery should be carried out without delay in a hospital well equipped for caesarean section, because once it becomes neglected transverse lie, than the picture for maternal and fetal outcome is poor.

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"In all things it is better to hope than to despair"

(Johann Wolfgang von Goethe)