

MATERNAL AND FOETAL COMPLICATIONS IN NEGLECTED TRANSVERSE LIE

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ABSTRACT

Objective: To see the frequency of foetal and maternal complications of neglected transverse lie at a tertiary care hospital.

Material and Methods: This prospective study was conducted at Gynae B Unit Department of Gynaecology and Obstetrics Lady Reading Hospital Peshawar, Pakistan, from 1st January 1997, to 31st December 1997. Eighty-seven Patients presenting with neglected transverse lie were included in this study. Detail information regarding name, age, address, parity, past history, physical, abdominal and vaginal examination findings, general management and specific managements like internal podalic version, caesarean section, foetal complications and maternal complications of neglected transverse lie were entered into a predesigned proforma for the purpose.

Results: The maternal complications in order of frequency were dehydration 86.5% (n=77), pyrexia 41.37% (n=36), wound sepsis 31.03% (n=27), antepartum haemorrhage (APH) 16.09% (n=14) and postpartum haemorrhage (PPH) 14.94% (n=13) and maternal death 1.14% (n=1). The foetal complications of neglected transverse lie were fresh stillbirth 55.17% (n=48), prematurity 14.94% (n=13), alive with poor Apgar score 10.34% (n=9), macerated stillbirth 8.04% (n=7), neonatal death 3.44% (n=3), post mature and alive 2.29% (n=2) and congenital malformation 2.29% (n=2). Emergency lower segment caesarean section was done in 58 (66.7%) cases, while internal podalic version followed by breech extraction was done in 21 (24.1%) cases.

Conclusion: Neglected transverse lie is associated with various maternal and foetal complications. Prenatal examinations are essential to reduce the unfortunate complications of transverse lie.

Key Words: Neglected Transverse Lie, Foetal Complications, Maternal Complications, Antepartum Haemorrhage, Postpartum Haemorrhage.

INTRODUCTION

Transverse lie is a condition in which the long axis of the foetus is perpendicular to that of the mother. The term neglected transverse lie is used in situations when the mother goes into labour with the abnormal lie, the membranes are ruptured and she is left to herself. Maternal and foetal outcome in neglected transverse lie depends upon the duration of labour, diagnosis and availability of proper management in time. Even with best care the chances of maternal and foetal complications are more as compared to longitudinal lie. This malpresentation most often results from a combination of foetal¹, maternal, pelvic, uterine², and placental³ causes. Known predisposing factors are, multiparity⁴, prematurity, placenta previa, polyhydramnios, hydrocephalus⁵

and uterine anomalies⁶.

Neglected transverse lie increases maternal risks and adds to foetal hazards. The maternal complications are pyrexia/sepsis, antepartum haemorrhage, dehydration, obstructed labour, imminent rupture of uterus, rupture uterus, cervical/vaginal/ perineal tear, shock, vesico-vaginal fistula, post partum haemorrhage and death⁷.

Foetal complications of neglected transverse lie are birth trauma, asphyxia due to the increased likelihood of cord accidents and uterine contractions, retraction which interferes with uteroplacental circulation, poor Apgar score at birth, sepsis after rupture of membranes and arm prolapse through vagina, cord prolapse⁸, prematurity, still birth and neonatal death⁹.

DEMOGRAPHIC DETAILS OF THE PATIENTS WITH NEGLECTED TRANSVERSE LIE

Demographic Details	Frequency	%age
Total Deliveries during the year 1997	3337	100
No of neglected transverse lie	87	2.6
Type of cases		
Booked	02	2.3%
Emergency	85	97.7%
Age wise Distribution of patients		
< 20 years	10	11.49%
21-35 years	22	25.28%
> 35 years	55	63.21%
Parity wise distribution of patients		
Primigravida	08	9.19%
Multigravidae	50	57.47%
Grand multigravidae	20	22.98%
G. Grand multigravidae	09	10.34%
Type of pregnancy		
Singleton	76	87.35%
Twins	11	12.64%
Period of gestation		
28-36 weeks	15	17.24
37-40 weeks	70	80.45
> 40 weeks	2	2.29

Table 1

This study was conducted to see the frequency of foetal and maternal complications of neglected transverse lie at a tertiary care hospital.

MATERIAL AND METHODS

This study was conducted at Gynae B unit Postgraduate Medical Institute Lady Reading Hospital Peshawar from January 1, 1997 to December 31, 1997. A total of 87 consecutive patients presenting with neglected transverse lie were included in this study.

An informed verbal consent was taken from the patients for inclusion in the study. History was taken, patient examined P/A and P/V and when was a case of neglected transverse lie, the relevant information was entered into a pre-designed proforma having information regarding name, age, address, parity, period of gestation, history of anaemia, duration of labour pains, history of any medication/manipulation at home, leakage of liquor, bleeding P/V, past history of surgeries or any other medical problems. General physical examination included blood pressure, pulse, temperature, pallor. Abdominal examination included any previous surgical scar especially Caesarean scar, fundal height in relation to period

MATERNAL COMPLICATIONS OF NEGLECTED TRANSVERSE LIE

Maternal Complications	Frequency (n = 87)	%age
Dehydration	77	88.5
Maternal pyrexia	36	41.37
Wound sepsis	27	31.03
APH	14	16.09
PPH	13	14.94
Septicemia	7	8.04
Ileus	7	8.04
Shock	5	5.74
Ruptured uterus	3	3.45
Perineal tear	2	2.29
Cervical tear	1	1.49
Mortality	1	1.49

Table 2

of gestation. Lie was assessed, foetal heart sounds noted.

After excluding placenta previa, vaginal examination was performed. Vaginal examination included V/V, cervical dilatation, presence or absence of membrane, station of presenting part and presenting part.

Investigations performed were haemoglobin, blood group and Rh factor and urine routine examination.

An operational definition of neglected transverse lie was devised as in situations when the mother goes into labour with the abnormal lie, the membranes are ruptured and she is left to herself.

Foetal and maternal complications if any, were recorded in a pre-designed proforma for the purpose.

RESULTS

During the year 1997, the total deliveries performed at Gynae B unit were 3337. Out of which 87 were the cases of neglected transverse lie, i.e. 2.6% of total deliveries that year. Of these patients 85 (97.7%) were unbooked admissions (table No. 1).

The data reviewed included age, parity, gestational age, weight of the infants, presence of risk factor for malposition, presenting symptoms and signs in addition surgical findings which included uterine anomalies, fibroid or any other pelvic mass, management and any complication encountered on admission or during hospital stay. Out of 87 cases only 2 were booked and even they needed emergency admission for spontaneous onset of labour. This large number of emergency

FOETAL COMPLICATIONS OF NEGLECTED TRANSVERSE LIE

Foetal Complications	Frequency (n = 87)	%age
Fresh still birth	48	55.172
Premature	13	14.94
Alive but poor A/S	9	10.34
Macerated still birth	7	8.04
Neonatal deaths	3	3.44
Post-mature and alive	2	2.29

Table 3

admission shows ignorance on the part of patient and other family members about antenatal booking and regular check ups. Majority reached hospital quite late because of lack of transport and other facilities. Neglected transverse lie is associated with maternal as well as foetal complications. The maternal complications in order of frequency were dehydration 86.5%, pyrexia 41.37%, APH 16.09%, PPH 14.94 % and shock 5.74% (table No.2). The foetal complications of neglected transverse lie were fresh still birth 55.17%, prematurity 14.94%, alive with poor A/S 10.34% and macerated still birth 8.04% (Table No. 3). Foetal outcome of neglected transverse lie is shown in table 4. Main causes of transverse lie were multiparity (58.62%), multiple gestation (12.64%) and uterine abnormality (10.34%) (Table 5). Emergency lower segment caesarean section was done in 58 (66.7%) cases, while internal podalic version followed by breech extraction was done in 21 (24.1%) cases and 3 (3.4%) cases had laparotomy followed by subtotal abdominal hysterectomy because of ruptured uterus.

DISCUSSION

Transverse lie reported by various authors is 1 in 322 (0.31%)¹⁰, 1 in 250¹¹ and 1 in 83 (1.37%)¹². In our study the incidence is 87 in 3337 deliveries (2.6%) including twin deliveries as well, delivered over one year period. The higher incidence is probably because Lady Reading Hospital is a referral tertiary care hospital draining a wide area. In transverse lie natural delivery is not possible and an operative intervention has to be resorted to. In patients presenting at term or in early labour with live foetus caesarean section is the best choice. However, if the cervix is nearly fully dilated and the pelvis is normal, internal podalic version with breech extraction is justified unless the liquor is completely drained or lower segment overstretched. Internal podalic version has a role in the delivery of second twin, pre-viable and dead babies¹³.

As most of our cases were emergencies coming from remote areas of the province, so they

FOETAL OUTCOME OF NEGLECTED TRANSVERSE LIE

Foetal Outcome	Frequency (n = 87)	%age
Alive and Healthy	23	26.43
With complications	64	73.67

Table 4

reached here in poor general condition. They were dehydrated, feverish, anxious, anaemic and some were even in shock due to antepartum haemorrhage, because of placenta praevia, abruption or due to ruptured uterus. Therefore, the management would start by improving the general condition i.e. maintaining intravenous line, instituting hydration, giving broad-spectrum antibiotic as soon as possible. Arranging cross-matched blood, where indicated.

The most appropriate treatment option for cases of neglected transverse lie is emergency lower segment caesarean section¹⁴, as the membranes are usually ruptured with most of the liquor drained out and uterus severely moulded around the body of the foetus with thinned out lower segment or even there is imminent rupture of uterus. In our study emergency lower segment caesarean section was done in 58 cases, while internal podalic version followed by breech extraction was done in 21 cases and for this group hospital stay was shorter i.e. 1-3 days. Chauhan et al 2001, reported best neonatal outcome when internal podalic version (IPV) was performed on second twin¹⁵.

Three cases out 87 had laparotomy followed by subtotal abdominal hysterectomy because of ruptured uteruses. One out of these 3 had bilateral internal iliac ligation to control diffuse oozing from the cervical stump. If cases with neglected transverse lie are dealt within time then severe complication like rupture uterus is rarely encountered.

Neglected transverse lie is associated with various maternal and foetal complications. To

CAUSES OF TRANSVERSE LIE

Causes	No. of Cases (n = 87)	%age
Multiparity	51	58.62
Multiple gestation	11	12.64
Uterine abnormality	9	10.34
No cause	5	5.74
Placenta praevia	5	5.74
Prematurity	4	4.59
Foetal malformation	1	1.14
Contracted pelvis	1	1.14

Table 5

reduce the maternal as well as foetal complications early referral for hospital delivery is important to reduce the risks during pregnancy and labour¹⁵.

The maternal complications in order of frequency were dehydration 86.5%, pyrexia 41.37%, APH 16.09%, PPH 14.94 %, shock 5.74%, ruptured uterus 3.45% and maternal death 1.14%. The foetal complications of neglected transverse lie were fresh still birth 55.17%, prematurity 14.94%, alive with poor Apgar score 10.34%, macerated still birth 8.04%, neonatal death 3.44%, post mature and alive 2.29% and congenital malformation 2.29%.

Jakobovits 1993¹⁶, reported effect of foetal lie and presentation on the labour and delivery process. Out of 541 pairs of twins, in 299 instances (55.27%) at least one of the foetuses occupied a transverse lie or presented by the breech. In association with premature labour, out of 239 sets of twins, in 134 instances (56.07%), the presentation of at least one of the twins was abnormal. The same phenomenon occurred in 165 out of 302 pairs (54.63%) when labour set in at term. The percentual frequency of abnormal presentations appeared to be positively related to maternal age and parity. In connection with abnormal presentations, there was an increase in the rate of caesarean sections (38.13% versus 13.21%) and that of low Apgar scores (18.18% versus 9.3%), as compared to those cases where both foetuses presented by the vertex. Of all cases of perinatal mortality, 57.76% involved twin pairs with abnormal presentation versus 42.24% for cases where both foetuses presented by the vertex¹⁶.

Higher rates of perinatal mortality (23.1%) were observed in the nonvertex group when compared with vertex births, as well as other complications such as oligohydroamnion (9.2%); small-for-gestational-age; (10.5%); congenital anomalies (11%); placental abruption (8.7%); placenta previa (6.8%); premature rupture of membranes (25.4%); chorioamnionitis (7.9%); prolapse of cord (2.3%) and caesarean section rate (63.9%). Neonatal mortality was found to be higher for transverse.¹⁷

In another study of hundred and forty-two cases, 92.1% had an emergency caesarean section. The rest had the external version followed by vaginal delivery. There were two maternal deaths resulting from haemorrhage, infections and difficult surgery. There were 25 stillbirths, and 37 of the neonates required hospital admission¹⁸.

Ruptured uterus is a grave obstetric complication, associated with high maternal mortality and morbidity, perinatal mortality and

loss of future fertility as hysterectomy is inevitable in many cases proper quick diagnosis and prompt management will reduce maternal mortality and morbidity¹⁹. In our study there were 3 (3.4%) cases of rupture uteri.

Out of 13 premature babies, 3 were alive but had poor A/S and needed nursery admission, 10 were fresh still birth.

Those cases that had associated complication like wound sepsis, wound dehiscence, PPH, urinary retension or sloughing of anterior vaginal wall. They remained hospitalized for 2 to 3 weeks accordingly.

CONCLUSION

Neglected transverse lie is one of the important obstetrics emergencies. Foetal, neonatal and maternal mortality and morbidity is quite high. Prognosis depends on early diagnosis and prompt management, which may improve both perinatal and maternal outcome.

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