

# INCIDENCE OF VARIOUS FACTORS CONTRIBUTING TO DYSTOCIA AND OUTCOME OF PREGNANCIES

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## SUMMARY

348 cases of obstructed labour were studied for the incidence and various contributing causes. On the maternal side, illiteracy, ignorance about antenatal care and misuse of Oxytocin by untrained persons, i.e. traditional birth attendants, were the main contributing factors. The commonest cause in primigravidae was uterine dysfunction, while in multigravidae, it was malpresentation (transverse lie), followed by macrosomic babies resulting in cephalo-pelvic disproportion. 46 percent ended in Caesarean section and 25 percent in forceps delivery. Morbidity rate was high in these patients.

## INTRODUCTION

Dystocia or difficult labour is one of the main factors contributing to maternal as well as neonatal mortality and morbidity. Arrest disorders of labour represent severe dystocia. Their association with increased frequency of operative delivery, perinatal mortality, neonatal morbidity and neurologic deficits have been well documented.<sup>1</sup>

The problem also exists in developed countries. Approximately 50% of all primary Caesarean sections are performed because of dystocia.<sup>2</sup> In United States, the rate increased from 4.5% in 1965 to 23% in 1985.<sup>3</sup> Medical management is a safe and effective alternate to immediate operative intervention. The Canadian Consensus Conference 1986 recommended a trial of medical management to reduce Caesarean section rate for dystocia.<sup>4</sup>

Proper foetal monitoring with an intrauterine pressure catheter and the use of partogram to assist the diagnosis of an active phase of arrest, followed by Caesarean section at appropriate time, results in no increase in foetal and maternal morbidity.<sup>5</sup> The aim of the present study was to

find out the incidence of different factors contributing to dystocia, outcome of pregnancies and the steps one could take to prevent them.

## MATERIAL AND METHODS

The selection of patients was done in Gynae "B" unit, Postgraduate Medical Institute, Lady Reading Hospital, Peshawar from October 1, 1988 to September 30, 1989. Total number of deliveries was 2168, out of which 348 cases had dystocia.

Cases of various ages and parity were included, majority were admitted in emergency. A few were referred from district hospitals and private clinics. The contribution from booked cases was less. Dystocia was diagnosed on history, abdominal and pelvic examination.

Arrest disorders were diagnosed where no dilatation of cervix occurred after two hours of regular uterine contractions. Primary dysfunction was diagnosed where rate of cervical dilatation was less than 1 cm/hour.<sup>6</sup> Malpositions and malpresentations were diagnosed on examination that were confirmed by ultrasonography or X-ray.

In most of the cases immediate operative delivery was decided upon which included cases with foetal distress and malpresentations, while in some of the cases partograms were maintained. X-ray pelvimetry was done preoperatively in very few cases.

## RESULTS

Majority of the patients came in emergency (95.97%). Major contribution was from unbooked cases. In 70% of cases, duration of labour was more than 24 hours; more time being spent at home. 187 patients came with fully dilated and effaced crevices. Age factor had no contribution. Majority of cases were between 20–40 years of age. Oxytocin is widely misused by traditional birth attendants without evaluating the case of adjusting the dose. 47% cases had injection oxytocin at home, the maximum number given were 10 ampoules.

Different causes of dystocia and their comparison in both primi and multigravidae are presented in Table-1. The commonest cause in primigravidae was primary dysfunction labour (8%), while malpresentation specially transverse lie 18% and macrosomia 12% were more common in multigravidae.

Total number of ruptured uteruses was 38 (10.91%). In 6.8% cases there was no

cause of rupture except history of oxytocin injection at home. The incidence of operative delivery was high in these cases. In 78 (22.4%) cases labour was augmented with oxytocin and in 49 (14.00%) cases amniotomy was also performed. Only 14 (14.02%) cases delivered normally. The comparative operative procedures in those cases where labour was augmented in contrast to those where it was not augmented are given in Table-2.

Majority of the patients were anaemic. The commonest cause was iron deficiency anaemia. Patient with pyrexia had genital tract infection confirmed by high vaginal swab for culture. The commonest organism was E.Coli. Some of the admitted patients developed V.V.F. after 3–4 weeks due to pressure necrosis. Paraparesis occurred due to pressure of the after coming head in the breech delivery. These patients recovered with physiotherapy (Table-3).

There were 13 maternal deaths, the commonest cause was haemorrhagic shock. Next common cause was infection (Table-4).

Analysis of neonatal outcome showed 139 still born babies. In these patients foetal heart sounds were absent at the time of admission. Exact number of the neonatal deaths could not be detected as a majority of the patients did not come for follow up (Table-5).

TABLE 1  
CAUSES OF DYSTOCIA

Causes	PRIMIGRAVIDAE		MULTIGRAVIDAE	
	Number	Percent	Number	Percent
1. Uterine Dysfunction	28	8	21	6
2. Pelvic Factors	16	4.59	30	8.62
3. Foetal Factors	54	15.9	220	59.5
4. Genital Tract Abnormalities	2	0.57	5	1.45
5. Ruptured Uterus	—	—	23	6.8

TABLE-2

## MODE OF DELIVERY WITH AND WITHOUT AUGMENTATION

Mode of Delivery	WITHOUT OXYTOCIN		WITH OXYTOCIN	
	Number	Percent	Number	Percent
1. Caesarean Section	123	35.43	39	11.2
2. Forceps Delivery	50	14.36	25	6.1
3. Amniotomy	—	—	49	14.8
4. Ruptured Uterus	38	12.5	—	—
5. Craniotomy	16	4.59	—	—
6. Normal Vaginal Delivery	—	—	14	4.02
7. Vacuum Delivery	15	4.3	—	—
8. Internal Podalic Version	8	2.29	—	—
9. Delivery of Shoulder	8	2.29	—	—
10. Assisted Breech Delivery	5	1.43	—	—

## DISCUSSION

Most of the patients included in the study were admitted in emergency, only a few cases were booked. There were many factors contributing to the obstructed labour. 94% patients were uneducated and were not aware of the importance of regular antenatal check-ups. 58% patients with obstruction belonged to the poor socio-economic class, whereas only 6% belonged to higher class, showing that only rich people can visit the hospital in time and thus chances of complicated labour are reduced, while the poor people are usually unable to reach the hospital in time and their delayed arrival results in complicated labour that ultimately may cause uterine rupture or even death.

About 70% of our population lives in rural areas and patients are handled by untrained attendants or some male dispensers, who give oxytocic drugs without any indication or proper judgement, that result in dysfunctional labour or even rupture of uterus.

The role of in-laws is also very important. In this study majority of the patients

came late with more extensive complications. The reason was the hesitation by husband or the mother-in-law in bringing the patient to the hospital. There are still many areas in Pakistan where in-laws prefer the death of the labouring women at home instead of bringing them to the hospital, considering it as social taboo. One of the contributing cause is that

TABLE-3

## MORBIDITY OF THE PATIENTS

Complications	No.	Percentage
1. Anaemia	325	(93.39%)
2. Pyrexia	157	(45%)
3. Wound infections	57	(16.37%)
4. Paralytic ileus	44	(12.64%)
5. Rupture uterus	38	(10.91%)
6. Shock (haemorrhage)	21	(6.03%)
7. Urinary tract infection	18	(5.17%)
8. Chest infections	11	(3.16%)
9. Breast engorgement	9	(2.58%)
10. Vesico vaginal fistulae	7	(2.10%)
11. Retention of urine	4	(1.14%)
12. Paraparesis	3	(0.86%)

TABLE-4  
CASES OF MORTALITY

Cause of death	No.	Percentage
Haemorrhagic shock	5	1.43%
Septicemia	3	0.86%
Disseminated intravascular coagulation	2	0.57%
Puerperal psychosis	1	0.28%
Pulmonary embolism	1	0.28%
Cardiac arrest (during anaesthesia)	1	0.28%
Total	13	3.73%

majority of the patients were multigravidae and those who never practised any contraception.

The following recommendations can improve maternal health and decrease maternal mortality as well as foetal rate.

Public education programme through mass media (radio, TV, press) is necessary to increase awareness of better maternal health, nutrition and antenatal care.

Family planning and child spacing and immunization should be introduced. Also, through mass media public should be informed about the available facilities.

The dais, health visitors and other health personnel should be well trained and special attention should be paid on the conduct of a safe normal delivery,

asepsis and early detection of complications and maternal conditions requiring hospital care. These people could probably seek out pregnant patients during home visits.

Educate the patients about antenatal care. Anticipate difficulties in labour and select women for hospital confinement. Manage the normal labour using the composite partograph that will help in the early recognition of cephalo-pelvic disproportion.

Free and fast ambulance service should be made available and hospitals should have adequate number of beds for obstetrics and gynaecology.

Teaching units should be provided with equipment e.g. sonicaid, ultrasonography and foetal monitors.

Partograph should be introduced in all hospitals and at all levels of obstetrics practice, because this can save lot of time and trouble.

Improvement of blood bank facility is most important.

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TABLE-5  
FOETAL OUT COME

Total No.	Sex		APGAR						Weight in Kg			Head Circumference	
	Male	Female	1 Minute			5 Minute			2.5	2.5-4	> 4	35-40	41-59
			0	1-7	> 7	0	1-7	> 7					
351 (Three sets of twins).	181	170	139	168	44	—	70	142	25	248	75	182	21

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