

ANALYSIS OF LABOURS COMPLICATED BY PERSISTENT OCCIPITO POSTERIOR POSITION

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SUMMARY

In a prospective study fifty-five cases of labours complicated by persistent occipito posterior position were identified among 2170 deliveries at the Gynae Unit B Hayat Shaheed Teaching Hospital in 1996. In 24(43.63%) cases persistent occipito posterior position complicated labours in primigravida and in 50(90%) cases pregnancy was between 36-40 weeks. Common associated obstetric problem were small maternal pelvis, fetal macrosomia, PROM, previous caesarean section, cord around neck and twins. 45(81.18%) cases were nonbooked and 37(56.35%) cases had a prolong labour. 31(56.46%) cases had Instrumental delivery, and caesarean section was done in 13(23.63%) cases Maternal morbidity was 34% and mortality was 1.8%.

INTRODUCTION

Occipito posterior position is one of the three possible causes of delay in spontaneous labour, other being cephalopelvic disproportion and inefficient uterine action¹. In occipito posterior position, due to the need for long internal rotation, poor contractions and deflexion of the head in some cases, the length of the labour is prolonged by about 2-4 hours. Delivery from persistent occipito posterior position presents special problem, as even in cases

where spontaneous face to pubes delivery occur without any assistance, perineal tear and extension of episiotomy are more common as greater diameters must ultimately distend the vulval outlet. In operative vaginal deliveries, the head in most cases have to be rotated to either direct occipito posterior or occipito anterior and then delivered. Rotational vaginal deliveries are done manually, with forceps or vacuum depending on pelvic findings, size of baby, instrument available, skill and training of operator. Perinatal and maternal mortality and morbidity may be high with

instrumental delivery, prolong labour and any associated obstetric problem especially when patient is unattended and managed during labour by in experienced personnel. For optimal results it is necessary to diagnose the condition at an early stage and to follow the initial diagnosis by skilled assessment and planned delivery by experienced staff working in proper surroundings. The aim of this study was to determine and analyze the associated obstetric problems and the maternal and fetal outcome in pregnancies complicated by persistent occipito posterior position.

MATERIAL AND METHODS

All pregnant women admitted in gynaecology unit B of HSTH during study period 1st January-31st December 1996 and diagnosed to have a persistent occipito posterior position were included in study. After admission detailed history, of the present and past pregnancies was noted.

Systemic and obstetric examination was done. Further management of the patient depended upon the period of gestation, Bishop scoring, pelvic adequacy, associated medical and obstetric problems. In selected cases induction of labour was done with vaginal prostaglandin E2 pessary. Patients with failed induction underwent caesarean section. Labour was managed by keeping a partogram and any abnormality in the progress of labour was noted. Indications for intervention in first stage of labour were failure of progress, fetal distress etc. Mode of delivery of the patients was individualized depending upon the size of baby, maternal pelvis. Station of presenting part, absence or presence of fetal distress. In instrumental delivery for a very low head on the perineum in direct occipito posterior position outlet forceps were used. For head between +1 and below vacuum or mid cavity forceps were used. Apgar scoring was

CHARACTERISTICS OF PATIENTS
N = 55

Parity	No.	%
1	24	43.63
2-5		16
29.09		.
6-9		14
24.45		
10-13	1	1.80
Booking status		
Booked	10	18.18
Non-booked & referred	45	81.81
Period of gestation		
28-36	3	5.45
36-40	50	90.00
>40	2	3.60

TABLE - 1

done at 1 and 5 minutes. Babies of low apgar were resuscitated. All the babies born by instrumental deliveries were shown to the Paediatrician.

ASSOCIATED OBSTETRICAL PROBLEMS
N = 55

	No.	%
Bony abnormalities of pelvis	4	7.27
Fetal macrosomia	4	7.27
Post maturity	2	3.63
Premature	3	5.45
Pre eclamptic toxemia	1	1.81
Eclampsia	2	3.63
PROM	10	18.18
Antepartum haemorrhage	2	3.63
Previous Caesarean section	4	7.27
Previous VVF repair	1	1.81
Loop of cord around neck	5	9.09
Twins	4	7.27
Triplets	1	1.81
Congenital abnormality	1	1.81
Polyhydramniotic	1	1.81
Diabetes	1	1.81

TABLE - 2

LABOUR
N = 55

	No.	%
Induced	7	12.70
Augmented	10	18.18
Spontaneous	38	69.09
Abnormalities		
Prolong first stage	20	36.36
Prolong second stage	17	30.9

TABLE - 3

RESULTS

Persistent occipito posterior position occurs in about 4-5% of deliveries². In the present study it was identified in 55(2.53%) cases out of 2170 deliveries. Persistent occipito posterior position is found more commonly in primigravida, according to Ian Donald persistent occipito posterior position seldom inconvenience the labouring multipara³. In this study in 24(43.63%) cases it complicated labour in primigravida. Gestational age varied between 34-42 weeks however, 50(90%) cases had a pregnancy of 36-40 weeks. Majority of the patients (81.81%) came in emergency, major contribution was from unbooked and referred cases.

Common associated obstetric problems were PROM in 10(18.18%) cases, as fore waters are not plugged efficiently by presenting part during uterine contractions

MODE OF DELIVERY
N = 55

	No.	%
Spontaneous vaginal delivery as face to pubes	11	20.00
Outlet forceps delivery	16	29.09
Midcavity forceps delivery	6	10.90
Vacuum delivery	9	16.36
Caesarean section	13	23.63

TABLE - 4

and membranes rupture early. Fetal macrosomia and pelvic factors were found in 4(7.27%) cases each.

Labour was spontaneous in 38(69.09%) cases and was induced in 7(12.7%) cases due to the presence of associated obstetric problems like eclampsia, PET, diabetes and congenital abnormalities. In persistent occipito posterior position with a deflexed head the occipito frontal diameter of 11.5cm presents instead of the sub-occipito bregmatic while in a flexed head the sub-occipito frontal of 10cm presents causing dystocia, prolong labour and perineal laceration⁴ also secondary arrest of labour is more common⁵. In this study also 37(67.26%) cases had a prolong labour with history of manipulation at home by Dias and TBA. According to Neri-A et al.⁶ statistically significant difference is found between patients with persistent occipito posterior deliveries and spontaneous deliveries, regarding the incidence of instrumental deliveries, prolong second stage, prostaglandin-E2 induction, premature rupture of membranes and episiotomy.

Several management options for occipito posterior are possible, non-operative are watchful expectancy and maternal repositioning, operative options include manual rotation, forceps rotation and delivery of the infant in an occiput posterior position by forceps or vacuum⁷. In this study 11(20%) cases had a spontaneous face to pubes delivery that is possible with a well-flexed head, adequate maternal pelvis and good uterine contractions. 31(56.36%) cases had instrumental delivery and caesarean section was done in 13(23.63%) cases Outlet forceps assists the delivery of the baby in the unrotated occipito posterior position. Midpelvic procedure involving rotation of fetal head to either direct occipito posterior or occipito anterior are performed. For forceps rotation the Stillman or the classic Scanzone manoeuvre is preferred. In an

COMPLICATION OF LABOUR

N = 55

	No.	%
Failure of Induction	2	3.63
Maternal distress	6	10.90
Fetal distress	14	25.45
Extension of episiotomy	10	18.18
Cervical tear	4	7.27
Post partum haemorrhage	4	7.27
Ante partum haemorrhage	4	7.27
Extension of uterine incision	4	7.27

TABLE - 5

attempt to reduce trauma associated with forceps rotation, method of single blade rotation was introduced by Maughan and Marchan⁸. The percentage of instrumental deliveries and caesarean section in the year 1996 was 11.80% and 11.90% respectively.

14(25.45%) cases had extension of episiotomy and cervical tear. In a study conducted by Adrew Combs at al⁹ 35% of the patients with persistent occipito posterior position were at a risk for 3rd and 4th degree tear¹⁰. Pearl at al found a higher incidence of severe perineal laceration and episiotomy in their persistent occipito posterior group and increase incidence of Erb's palsy and facial nerve palsy following forceps delivery in this group. In 14(25.45%) cases there was fetal distress requiring immediate delivery, and there were 3(5.45%) cases of fresh stillbirth. In these patients foetal heart sound was absent at the time of

FETAL OUTCOME

N = 55

	No.	%
Meconium Aspiration	6	10.90
Birth trauma	3	5.45
Low apgar at 1 minute	8	14.54
Low apgar at 5 minutes	2	3.63
Still birth	3	5.45

TABLE - 6

admission exact number of neonatal deaths could not be detected, as majority of the patients did not come for follow-up. Maternal mortality was one, the patient came in emergency with obstructed labour due to persistent occipito posterior position and hypovolemic shock due to APH, she was delivered by applying mid cavity forceps. Postnatally she developed PPH for which STAHL was done however the patient expired due to the shock.

DISCUSSION

In the above study the rate of prolong labour, operative vaginal deliveries, Caesarean section is high. The percentage of patients having an associated obstetric problem is also high. Khyber Teaching Hospital being one of the three tertiary care hospitals of the province has to deal with most of the complicated obstetric cases, most of the deliveries are conducted at home, while some cases believed to be uncomplicated in the maternity homes, but when some major complication occurs the patient are rushed to the hospital. The study shows that 81.81% of patients come in emergency with complaints of prolong labour. According to a study conducted by Agha Khan Hospital¹¹ obstetric department in 1995, the overall rate of home deliveries in Pakistan is 85% by Dias and TBA's. Poverty, lack of antenatal care and ignorance of the consequences of late presentation, resulted in most of the patients attending the hospital when labour is already obstructed with fetal compromise, resulting in high rate of operative delivery, intrauterine death and intrauterine infection due to prolong rupture of membranes and multiple digital examination outside the hospital. It is therefore suggested to improve maternal health services at the community and first referral levels. It is only by providing easily accessible and affordable

medical care that we can decrease the high rate of complication of pregnancy. Primary health care is the foundation from which the problems can be addressed. There are two main points of intervention, community level intervention which should target TBA's, community health workers and midwives and intervention at first level referral center. Provision for instrumental and operative procedures, safe anaesthesia, blood transfusion must be made at the first level referral center to bring about real change¹².

Training programs should target TBA's, community health workers, midwives and nurses so that they can provide improved obstetrical care and vigilance in techniques of delivery, identify high risk cases make appropriate referral and offer family planning information and services.

Health educational programs through media and local teaching institution's should encourage women to have antenatal checkups and hospital deliveries by trained staff. By providing intervention at appropriate time the high maternal and fetal morbidity and mortality rates can be reduced.

Partograph should be introduced in all hospitals and at all levels of obstetric practice. Which help in early detection of abnormal labour pattern. Facilities for detection of fetal distress should be improved, because in all cases admitted for prolong labour, no attention is paid to fetal condition, so that even if operative procedure is done a baby of very low apgar is delivered with poor chances of survival.

Use of instruments to assist delivery has always been controversial. In modern obstetric practice, even extensive reliance on abdominal delivery has not resulted in a disappearance of maternal or fetal trauma. Dierker et al¹³ found no evidence of greater

neonatal morbidity with midforceps compared with caesarean section when indication for delivery in both groups was dystocia or fetal distress. Traub¹⁴ compared 132 kielland forceps deliveries and 20 failed kielland forceps deliveries with 101 caesarean section performed during the second stage of labour and could find no increase in neonatal morbidity in forceps, similarly Bashore et al¹⁵ compared 358 mid forceps and 486 caesarean section done because of fetal distress and dystocia in second stage and reported no increase in significant short term neonatal morbidity in the midforceps group while maternal morbidity was higher in the caesarean group. Thus there is a continuing need for the judicious use of instrumental assistance in modern obstetric practice what is demanded of the practitioner is that they make careful choices and process with meticulous care, so as to save women from scar of caesarean section. In true midpelvic operations vacuum extractor is the procedure of choice for most but not all practitioners. However midpelvic forceps need not be abandoned by the experienced. The safe use of midforceps require systematic approach to proper patient selection and recognition of factors that are important in minimizing neonatal trauma these include station of fetal head, estimated fetal weight, size and shape of maternal pelvis, severity of fetal distress and condition of the mother. When caesarean section is contemplated the potential benefits to the neonate should be carefully balanced against the risk to the mother.

It is through a marked improvement in the intranatal management of patients with occipito posterior position, that we can not only avoid the associated risks, both maternal and fetal, but also prevent the rising tide of caesarean section rate which poses a threat to developing countries like ours with deficient resources and unstable economy.

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