

Obstructed Labour: The Preventable Factors

Pages with reference to book, From 261 To 263

Saadia Khan, Mahnaz Roohi (Department of Gynaecology, Gynae Unit II, Punjab Medical College, Faisalabad.)

Abstract

Sixty-two cases of obstructed labour were reviewed during 6 months at a district head quarter hospital, Faisalabad to highlight the prevalence of obstructed labour and ascertain how to manage and possibly avoid this complication with special emphasis on preventable factors. There were 1584 deliveries during this period giving an incidence of obstructed labour as one in 25 deliveries. Five patients had rupture of uterus and there was one maternal death (JPMA 45:261, 1995).

Introduction

Obstructed labour is a dangerous complication of pregnancy which poses special threat to the life of mother and fetus and results from an unfortunate relationship between fetal anatomy and maternal capacity¹. The problems related to this condition are still very common in our country where antenatal care is far from satisfactory as compared to that in Western countries where antenatal care is almost reaching perfection². The result is that obstructed labour is almost not encountered. On the contrary, in our country a significant proportion of patients present with a full blown picture of obstructed labour and its sequelae. Unless timely and proper method of delivery is adopted, the results may be catastrophic with high fetal and maternal morbidity and mortality. Early diagnosis and prompt intervention are critical. The importance of close antenatal supervision cannot be over emphasised in the prevention of obstructed labour³.

Patients and Methods

All deliveries conducted in the department of obstetrics and gynaecology of district headquarter hospital between 1-9-93 to 28-2-94 were included in the study. There were 1584 deliveries, of these 62 presented with obstructed labour. All the patients were analysed in detail, the predisposing and preventable factors explored and intrapartum management and postpartum course studied.

Results

Majority of patients were admitted after considerable mishandling. Fifty-two women had received no antenatal care. Seven were booked and three attended the clinic on few occasions. Eight subjects had single and 3 had two caesarean sections in the past. The number of patients in each parity group is shown in Table I.

Table I. Relationship of parity and obstructed labour.

Parity	No of patients
0	16
1-4	13
5-8	29
Above 8	4

Although a number of them were primigravid, more than half were para four or above. The duration of labour prior to admission and its association with fetal salvage can be seen in Table II.

Table II. Duration of labour prior to admission and fetal salvage.

Duration of labour	No of patients	Fetal survival (%)
<12 hours	2	100
12-24 hours	51	50.9
>24 hours	9	0

The causative factors leading to obstructed labour are evaluated in Table III.

Table III. Aetiology of obstructed labour.

Causes	No of patients
Transverse lie	33
Cephalopelvic disproportion	
i) Normal vertex	19
ii) Hydrocephalus	2
Other malpresentations	
i) Mentoposterior	1
ii) Compound presentation	1
iii) Brow presentation	4
iv) Arrest of after coming head	2

Majority had neglected transverse lie in which grand multiparity was an important contributory factor. Other causes included cephalopelvic disproportion including hydrocephaly and other malpresentations. The signs and symptoms varied in severity and presented in various combinations. Forty-two patients were admitted with gross intrapartum infection and dehydration. Most patients were in poor general condition due to exhaustion, dehydration and pre-existing severe anaemia. Blood transfusion was not easily available to all. Four were admitted in a state of shock, 3 due to exanguination following rupture of uterus and one due to extensive vaginal lacerations. There were five cases of ruptured uterus. Diagnosis of ruptured uterus was made preoperatively in 3, while in other two cases rupture was found intraoperatively. Thirty-three cases had a transverse lie, most of them presenting with hand prolapse, while 5 had a cord prolapse in addition to hand prolapse. Because of frank or potential sepsis every case was given triple cover for Gram positive and Gram negative organisms as well as anaerobes. Forty-two patients had manifestations of established sepsis. In fifteen patients foul smelling discharge per vagina was present and in six frank pus was present in the uterine cavity. One patient developed Gram negative septic shock in the postoperative period and another developed full blown picture of disseminated intravascular coagulation postoperatively and bled from different sites leading to postpartum haemorrhage, haematemesis and bleeding from sites of venepunctures. This patient could not be saved. Wound dehiscence occurred in 15 patients but only one developed a burst abdomen. The patient with extensive lacerations of vagina later had stenosis of the vagina which required repeated attempts at reconstructive surgery. In the present series, there was no incidence of urogenital fistula.

Table IV. Operative procedures in obstructed labour.

Procedure	No of patients
Caesarean section	53
Caesarean hysterectomy	3
Repair of ruptured uterus with sterilization.	2
Extraction under G.A. of after coming head in breech presentation	2
Craniotomy	2

Table IV shows the procedures carried out.

Fetal outcome

Of 62 cases, 15 came without fetal heart sounds. Twenty babies were delivered with an Apgar Score of less than five at one minute, of these five could not be resuscitated. Ten babies died in the neonatal period. The perinatal mortality was 19 per 1000 births.

Discussion

Obstructed labour is a dangerous complication of pregnancy, which has almost disappeared from the western world but is still one of the leading cause of maternal mortality in developing countries⁴. In the present series there was one maternal death. The frequency of obstructed labour in this series was 1 in 25 deliveries. The reason for this high figure of abnormal labour is that only complicated cases attend the hospital⁵. Majority of these cases were brought in late as emergency admissions, badly neglected and quite a few were severely infected. Some were in a state of exhaustion with impending rupture or rupture of uterus which is one of the worst obstetric disasters⁶.

Possible preventable factors in obstructed labour

Majority (93%) of patients with obstructed labour were unbooked and had received no antenatal care. Catastrophic conditions such as transverse lie and other malpresentations can only be detected by proper antenatal care, which could also prevent the tragic results which follow obstructed labour⁷. Antenatal care in our country is far from satisfactory. The reason being that majority of the population live in rural areas, with a high illiteracy rate, restricted health care facilities with an underlying synergistic background of anemia, malnutrition, infection and unregulated fertility⁸. Consequently a large majority of patients reach hospital too late with features of obstructed labour with grave consequences⁹. In the present series all the patients were anemic and 90% had a hemoglobin of less than 8 g/dl. It would be a great achievement if anemia could be dealt within the antenatal clinic and if the grand multiparas could be motivated for sterilization. A large majority in the present series were grand multiparous. Delivery in a consultant unit is not necessary. Our country now has many doctors who could provide useful service in conjunction with highly trained midwives. Various studies from

Africa¹⁰ depicted that where such services were developed they became rapidly accepted by women of the community. Another factor noted was reliance of patients on local birth attendants. It was also observed in this series that the small number of patients (7%) who did attend the antenatal clinic regularly, eventually opted for home delivery. The possible reasons for this could be a false sense of security during antenatal check-ups that all is well, dissatisfaction with the hospital staff especially lack of polite attitude and long waiting time (personal observation) or deeply embedded preference for traditional midwives. Eight patients had one and three had two caesarean sections in the past. Ten out of these eleven patients had received no antenatal care during pregnancy inspite of having had a caesarean section previously. This could be attributed to two reasons. Firstly it is suspected that often sufficient time is not spent in explaining to the patients the reasons for caesarean section and the need for adequate supervision in subsequent pregnancies¹¹. Secondly, poor patient compliance to the advice given due to lack of understanding and education with a tendency to rely more on advice given by traditional birth attendants¹². Cephalopelvic disproportion in multigravidae is a particularly treacherous condition since both the patient and the birth attendant tend to relax due to previous uncomplicated deliveries and also because it is not always easy to recognize. Rupture of uterus becomes almost inevitable in a multigravid should the obstruction go unnoticed and oxytocin infused to stimulate the parous organ which is efficient by nature¹³. Good intrapartum care can easily diagnose the condition. Prevalence of obstructed labour, an obstetrical disaster, is influenced by availability, quality and acceptance of maternity services in a community. The long term solution lies in prophylaxis i.e., provision of adequate antepartum and intrapartum care which could avert the preventable nature of obstructed labour.

References

1. Perkins, R. P. Fetal dystocia. Clin. Obstet. Gynaecol., 1987;30:56-68.
2. Kawathekar, P., Srinivas, P. and Sudha, G. Etiology and trends in the management of transverselie. Am. J. Obstet. Gynaecol., 1973;117:39-44.
3. Asuen, M. I. and Oronsaye, A. U. Obstructed labour - A 4years survey. Trop. J. Obstet. Gynaec., 1981;2:81-89.
4. Walraven, O. E. L., Mkanje, R. J. B., Van-Dongen, P. W. J. et al. Dolmans, Assessment of maternal mortality in Tanzania. Br. J. Obstet. Gynaecol., 1994;101 :414-417.
5. Sandhu, S. K. Transverse. Pie. J. Indian Med. Assoc., 1977;68:205-8.
6. Trivedi, R., Patel, K.C. and Swami, N.B. Rupture of uterus; a clinical study of 181 cases, J. Obstet. Gynaecol. (Brit. Cwlth), 1968;75:51-54.
7. Omu, A. E., Diejomah, F. M. E. and Tabowei, O. Modern Trends in the management of transverse lie in the tropics Asia Oceania 3. Obstet. Gynaecol., 1982;8:363-68.
8. Barns, T. Obstetric mortality and its causes in developing countries, Br. J. Obstet. Gynaecol., 1991 ; 98:345-48.
9. Chaudhuri, S. K. Shoulder Presentation in labour- A review of 50 cases, J. Indian Med. Assoc., 1967;48:385-91.
10. Harrison, K. A. Approaches to reducing maternal and perinatal mortality in Africa. In: Maternity Services in the developing World - What the community need. edited by Philpott, R.H., London, R.C.O.G., 1980, pp. 52.
11. Chattopadhyay, K. and Sengupta, Y. B. Edress and Lambouene A. Vaginal birth after caesarean section - Management debate, Int. J. Gynaecol. Obstet., 1988;26: 189-196.
12. Bellough, C. H. W., Lennox, C. E. and Lawson, J. Maternity care in developing countries. Proceedings of meeting of the RCOG, 30 June to 1 July 1989, RCOG, London, 1990.
13. O'Driscoll, K., Meagher, D. and Boylan, P. Active management of labour, the Dublin experience,

third edition, London, Mosby, 1993, p. 65.