A STUDY OF OBSTRUCTED LABOUR CASES AT CIVIL HOSPITAL, KARACHI

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ABSTRACT : *One hundred and eighteen (2.62%) cases of obstructed labour out of a total of 4500 deliveries were seen over a period of 4 years (1991-94) at Gynae. Unit I of Civil Hospital, Karachi. All cases were non- booked and included 52(44.07%) primipara, 37(31.35%) multipara and 29(24.58%) grandmultipara patients. Seventeen cases presented with fever, 6 with ruptured uterus and one with eclampsia. Caesarean section was performed in 112 patients with additional uterine repair in 3 cases while 3 women underwent hysterectomy. A perinatal mortality of 36.44% and a maternal mortality of 3.39% was noted in this series.*

KEY WORDS : *Obstructed Labour, Maternal Mortality, Foetal Loss, Rupture Uterus.*

INTRODUCTION

Obstructed Labour (OL) is an important obstetric catastrophe. Its incidence in a population is a reflection of the available antenatal care. Although it is non-existent in the civilized world it is very much present in the developing countries. A timely diagnosis and proper management of obstructed labour improves maternal and foetal mortality and morbidity. A neglected OL on the other hand can lead to undesirable sequelae which besides being medical can leave the patient with a social stigma. Development of urinary fistulae in these patients is a sinister problem. Repair of these fistulae is not always successful. Hence it is prudent to take all precautions to avoid OL and the development of these fistulae. This study was conducted to assess the prevalence of obstructed labour and its associated morbidity and mortality.

PATIENTS & METHODS

A retrospective study was conducted on all obstructed labour cases seen at the Gynaecology & Obstetrics Department (Unit-I), Civil Hospital, Karachi from Jan. 1991 to Dec. 1994. Details regarding gynaecological and obstetric history were noted from the case records. Data about patients condition at the time of admission, final treatment, pre and postoperative morbidity, perinatal and maternal mortality was also recorded.

RESULTS

From January 1991 to December 1994 a total of 4,500 patients were delivered in the Dept. of Gynae. & Obs, Civil Hospital, Karachi. Of these 118 (2.62%) patients were diagnosed as having OL. All were non-booked and majority (66–55.93%) were self referrals. Their parity is shown in Table 1.

Table 1. Parity of Obstructed Labour Patients

Parity	Number	%
Primipara	52	44.07
Multipara	37	31.35
Grand Multipara	29	24.58

Thirty-four (28.81%) patients had pregnancies associated with high risk factors. In 25 (21.19%) cases there was a previous history of still birth or neonatal death, such pregnancy loss was noted as high as three times in some patients. Seven (5.93%) patients had their last delivery by Caesarean section while two (1.69%) were carrying twins. All patients were in labour at the time of admission with an average duration of around 24 hours. Majority were dehydrated and exhausted (Table 2).

Table 2. Maternal Morbidity

Morbidity	Number	%
Fever	17	14.41
Rupture uterus	6	5.08
Vaginal Slough	6	5.08
Septicaemia	2	1.69
Bladder Trauma	1	0.85

Bandles ring was present in 13 patients. Six (5%) patients had vaginal slough, bruised ischaemic area in the anterior vaginal wall resulting from pressure of the foetal head. One patient came with rupture of urinary bladder associated with rupture of uterus. Not a single patient with OL in this series developed urinary fistula or obstetric palsy.

The causes of obstructed labour are shown in Table 3. Majority being due to faulty or deficient size pelvis or foetal malposition. Caesarean section was performed in 112 (94.92%) cases. Three (2.54%) patients underwent repair of ruptured uterus with sterilization in two. In 3 cases hysterectomy was carried out because the rupture of uterus was irreparable. Hospital stay of patients ranged from 7-50 days, av. stay being 21 days in primiparae and 16 days in grandmultiparae. Patients with prolonged stay had either wound morbidity or urinary infection due to catheterisation.

Table 3. Causes of Obstructed Labour

Cause	Number	%
Faulty Pelvis/Malposition	107	90.68
Transverse Lie	7	5.93
Vaginal Septum	1	0.85
Uterine Inertia	3	2.54

OL is associated with high perinatal and maternal mortality and morbidity. Foetal loss was noted in 43 (36.44%) patients (Table 4). Four women died giving a high maternal mortality of 3.39%. Two amongst them were brought in with septicaemia while one was in hypovolaemic shock secondary to ruptured uterus and one had eclampsia.

Table 4. Foetal Loss

Parity	Number	%
Primipara	14	32.56
Multipara	12	28.91
Grand Multipara	17	39.53

DISCUSSION

Although obstructed labour is no longer seen in the developed countries, its incidence is still high (2-5%) in the third world countries[1]. The incidence in our series also was 2.62%. Lack of antenatal care and unsupervised home deliveries are important contributory factors of the high incidence. Unfortunately associated high risk factors such as previous pregnancy loss as seen in this series fail to convince patients or her families to seek medical help in time. Risk screening during antenatal visits is a helpful prophylaxis against OL as evident by the fact that all our cases of OL were non-booked. Cephalopelvic disproportion (CPD), malposition and malpresentation constitute important predisposing factors. In our series 90.68% cases had CPD or malposition while 5.93% had transverse lie.

OL occurs more commonly in primigravida, in our study also they constituted 44.07%. A pelvis in a primigravida is an untried passage. Hence a small pelvis in the presence of a big body leads to OL. Dietary deficiency leading to ricketic pelvis, although seen less commonly now, is an important cause of small gynaecoid pelvis or relative cephalopelvic disproportion.

Minor degree of obstruction is overcomed by strong and powerful uterine contractions. Persistence of obstruction prolongs labour. Most of the patients, therefore, are admitted in established labour in a dehydrated and exhausted state. Signs and symptoms of pelvic infection may have already set in. Grand multigravidae are frequently admitted in a moribund state. Rupture of uterus occurs not uncommonly in them with an incidence as high as 14%[2]. In our series there were 6(5.08%) cases of ruptured uterus. This further deteriorate maternal condition by producing haemodynamic shock.

OL is an important aetiological factor of maternal mortality in developing countries. Rupture uterus, septicaemia and shock are important contributory factors of high maternal mortality in these patients. Quite frequently it is associated with as many as 11.4% of maternal deaths[2]. There were 4(3.39%) deaths in this study. Lack of transportation or poor access to health care facilities further raise the maternal mortality to 20%[3]. On the other hand vigilant management can lower it to 0.4%[4].

In case of OL besides maternal mortality, there is foetal loss also[5] because prolonged uterine contractions cause foetal anoxia. Without timely interference it is not possible to salvage the baby[6]. In Africa OL is the single most important cause of perinatal mortality[7]. A foetal loss of 36.44% was seen in our study. After resuscitation, if foetus is alive, Caesarean section is the surgery of choice as it reduces perinatal mortality to 21.7%[4]. Great care should be taken while performing Caesarean section as most of the amniotic fluid is usually

drained and the uterus is hugged to the baby making delivery a difficult task. Quite frequently the presenting part is jammed in the lower uterine segment with the formation of Bandles ring. If uterine incision extends to the broad ligament, it increase intraoperative haemorrhage and may entrap ureters while suturing. Urinary bladder is also high and oedematous. Unless it is pushed down carefully, it is vulnerable to trauma at the time of making and repairing uterine incisions.

In cases of pelvic outlet obstruction, symphysiotomy is an alternative to Caesarean section. It is considered a simple life saving surgical intervention which should be regarded as an adjunct measure in some cases, incompatible with normal vaginal delivery[8]. However, if symphysiotomy is performed with marked abduction of legs, it may leave the patient with chronic sacroiliac pain. After this procedure the next pregnancy should be supervised and the delivery conducted in an institution where all facilities are available to prevent trauma to the urethra and anterior vaginal wall.

Cases of OL with foetal demise can be managed by destructive operations such as craniotomy and decapitation. Because of potential morbidity associated with these procedures the competence of operator is mandatory. Craniotomy in selected cases is safer and quicker than Caesarean section. It leaves the patient with an unscarred uterus and hence does not jeopardize future fertility of the patient[9].

Intraoperative and postoperative care is important to minimize morbidity associated with OL. It is the most important cause of urinary fistulae, an incidence as high as 73.4%[10]. More commonly it is the result of ischaemic necrosis of the urinary bladder due to pressure of the foetal head. Not uncommonly it may be the result of iatrogenic insult to the urinary bladder or ureters. It is prudent to take all efforts to avoid development of fistulae. Prevention of infection and indwelling catheterisation of urinary bladder gives promising results. Routine application of these measures has prevented the development of urinary fistulae in many OL patients in the study group. It is interesting to note that during the study period 31 patients were admitted with urinary fistulae which were secondary to OL. These patients become a social outcast and are not acceptable to their husbands unless they are cured.

CONCLUSIONS

Sequelae of OL leave the patients as a social stigma. Tremendous maternal health gain can be achieved by appropriate obstetric care in cases of OL. There is a strong and urgent need to prevent OL through effective antenatal care, recognition of problems and referral system. Unattended home confinements should be discouraged especially in high risk pregnancies. To achieve this aim, there should be proliferation of basic health units and diffusion of knowledge amongst population through different media.

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