

The baby has not come: obstructed labour

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Introduction

This article is about how to recognize obstructed labour and deal with it in a way that preserves the life and health of mother and child. It is for midwives and others who work in maternity care and is based on our experiences in Yei, South Sudan. Obstructed labour means that the baby is too big to pass through the birth canal. It can be associated with prolonged labour. Prolonged labour can sometimes be treated, resulting in a normal delivery but a woman in true obstructed labour should be delivered by Caesarean section.

Predisposing factors to obstructed labour

Obstructed labour occurs either because the birth canal is small for the baby, the baby is too big for the birth canal or the position of the presenting head make it difficult for the baby to be born.

The pelvis of a woman can be small or she can have an abnormal pelvis if she:

- has had rickets due to lack of vitamin D while she was growing
- has had an illness like polio
- a serious road traffic accident damaging pelvic structures.

The baby may have problems such as hydrocephalus. If there are twins they may be locked in a position that does not allow them to deliver one after the other.

When a woman has had several pregnancies there is a greatly increased possibility that the 'lie' (position) of the baby will not be longitudinal (vertical in the uterus whether it is head up or down) but transverse (across the abdomen making natural delivery almost impossible). Therefore palpation or feeling the baby in the abdomen is an essential part of antenatal and labour care. Those with a transverse lie must go to hospital.

The position of the head can adversely affect the progress of labour. If it is tilted (asynclitic) or erect instead of flexed (this is sometimes called military!) the head will not stimulate regular effective contractions. During training midwives should learn all the possible positions of the head and how to feel for them.

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Figure 1. Ladies at the new ante-natal clinic
(credit Nancy MacKeith)

The new antenatal card (Figure 2) records a woman's past medical and obstetric history. It includes a Birth Plan which provides an opportunity for discussing possible problems at the earliest opportunity. If the problem is well established during pregnancy an elective Caesarean section before labour is possible. Figure 3 shows a woman of short stature who has just had her second elective section and so has two healthy children.

Clinical features of obstructed labour

A woman is probably in obstructed labour if she has been laboring for twelve hours with strong regular contractions with no progression to delivery (prolonged labour). She will be exhausted and there will be poor descent of the head even if the cervix is dilated. Palpation of the abdomen may reveal unusual shapes and the head still out of the pelvis. The woman will be tired, dehydrated, exhausted and might not have passed urine for many hours. Her urine may be bloodstained.

Evaluation of a woman with obstructed labour

Enquire about how long she has been in labour, frequency of contractions, if there is any bleeding from the vagina and the colour of her liquor. Is the baby still moving? You need to palpate her abdomen for the shape of the uterus, lie of the baby and check if you can feel the head above the pelvis. Listen to the fetal heart beats and count the rate.

Vaginal examination needs to be performed, by a

MAIN ARTICLES

ANTENATAL CARD

HEALTH FACILITY NAME: _____

PAYAM: _____ COUNTY: _____ STATE: _____

GENERAL INFORMATION

Name: _____ Date: _____ Card Reg. No.: _____

Marital Status: _____ Age: _____ Village: _____

PAST MEDICAL AND SURGICAL HISTORY e.g. Hypertension, TB, Sickle Cell, Diabetes etc.

PAST FAMILY HISTORY e.g. Hypertension, TB, Sickle Cell, Diabetes etc.

PAST OBSTETRIC HISTORY

GRAVIDA				PARAS								
Preg No.	Mother's Age	Abortion	Gestation Weeks	Place of Delivery	Duration of Labour	Mode of Delivery	Sex	Outcome of Foetus	APH	PPH	Other Issues	Remarks
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												

PRESENT PREGNANCY HISTORY

Last Menstrual Period (L.M.P.): _____ Expected Date of Delivery (L.M.P. + 9 months + 7 days): _____

HB: _____ Date: _____ RPR / VDRL: _____ Date: _____ HIV: _____ Date: _____

Urine: _____ Date: _____ Blood Group & RH Factor: _____

Visit No.	Date	BP	Weight	Edema	Fundal Height	Foetal Heart	Fetal Discharge	TT	Iron	ITN	IPT/SP	Remarks	Name / Sign
1.													
2.													
3.													
4.													
5.													
6.													
7.													

BIRTH PLAN

Planned place of delivery: _____ Who will deliver you: _____ How will you get there: _____

Mama Kit Received: _____ Who will accompany you to delivery place: _____

Do you have a clean cloth for the Baby: _____

POST NATAL CARE

Date of Delivery: _____ Mode of Delivery: _____ Place of Delivery: _____

Sex of Baby: _____ Weight: _____ Date Vitamin 'A' Received by Mother: _____

Condition of Baby including breast feeding: _____

Condition of Mother: _____

Family Planning Choice: _____

Figure 2. Front and back of the new ante-natal card

trained health worker wearing sterile gloves, checking for cervical dilatation, how low is the head in relation to ischial spines, position of the head and the colour of liquor. However, obstructed labour can be diagnosed from the history and palpation at least enough to refer the woman to hospital. If this is not available, the woman's obstetric history and palpation can give a good enough diagnosis of obstructed labour to refer the woman to hospital. Skilled staff such as midwives in primary health care centres and hospitals can use the partograph so that they are aware of problems in good time.

How to use the partograph:

- Record the baby's heartbeat every fifteen minutes. If the heartbeat is not regular and not between 120 and 160 beats per minute seek expert obstetric advice.
- Record if membranes have ruptured and, if they have, record the colour of the liquor (amniotic fluid).
- Plot cervical dilation and descent of the head on a graph. If the line of cervical dilatation crosses the 'alert' line health staff should watch the labouring woman more carefully. If the 'action' line is crossed the woman needs expert obstetric intervention.
- Record the mother's blood pressure, pulse rate and temperature.
- Check the bladder is empty – this is important to allow labour to progress – and then record output.

Management of possible obstructed labour at the hospital

Four regular contractions every ten minutes is a good definition of labour. If contractions are not regular and strong, health staff should aim to get the woman into true labour by amniotomy and/or giving oxytocin infusion.

The National Institute of Clinical Excellence in the United Kingdom [1] states that this is being done with varying combinations of timing and dose hence the best regime remains uncertain. A doctor should decide whether it is worth still trying for a normal delivery before starting oxytocin infusion as there are associated risks such as overstimulation of the uterus and uterine rupture.

Oxytocin may overstimulate the uterus thus putting the baby through too many contractions in a short time so there is not enough time between contractions for the baby to recover. This can lead to fetal distress. Oxytocin to augment labour should not be used unless it is possible to monitor the rate and strength of contractions and the baby's heartbeat. Crucially there should be access to tocolytics (drugs to stop contractions) and to emergency Caesarean section.

Complications of obstructed labour

If obstructed labour is not treated the baby may be damaged or die. The woman may develop a fistula (vesico-vaginal or recto-vaginal) because the baby's head has been pressing on bladder, bowel and vaginal tissue. There is a risk of uterine rupture especially if the woman has a scar on the uterus from previous surgery. This can be fatal.

Prevention of obstructed labour

- Birth Plans encourage women and their families to consider such issues as transport to the most appropriate facility and the possibility of an elective section.
- Community health education about obstructed labour is essential in a country where most women still deliver at home. A book "Learning Together about Safe and Healthy Birth" has been produced in English and Kakwa to use in discussion with women's groups [2].
- 'Waiting homes' where women at high risk can



Figure 3: Woman and baby after an elective section in Yei Civil Hospital

live near the hospital until they deliver may reduce maternal mortality from obstructed labour. A systematic review of primary level referral systems for emergency maternity care in developing countries found that maternity waiting homes

reduced the stillbirth rate but recommended further exploration through well conducted studies [3].

The new midwifery curriculum (which is with the government of South Sudan for approval) explains obstructed labour and how to teach it. Observing women in normal and abnormal labour is an essential part of learning midwifery skills although it is difficult for midwifery students to get this experience in a country where most women labour at home.

Summary

Antenatal care can pick out some women who are at risk of obstructed labour and a plan should be made for them to deliver in hospital. Careful monitoring in labour with appropriate use of abdominal and vaginal examinations can identify those who are not progressing. The partograph can give this valuable information in visual form. If the contractions are not regular and strong the safe use of oxytocin will increase the number of normal deliveries and therefore avoid some Caesarean sections.

References

1. National Institute for Clinical Excellence, UK. 2007. Individual research recommendation details. Available at <http://www.nice.org.uk/research/index.jsp?action=research&o=796> accessed 29/07/12
2. Hodges D. 2012 Learning Together About Safe and Healthy Birth South Sudan District of the United Methodist Church.
3. Hussein J, Kanguru L, Astin M, Munjanja S. 2011. What kind of policy and program interventions contribute to reductions in maternal mortality? The effectiveness of primary level referral systems for emergency maternity care in developing countries. Final report: DFID systematic review program PO 40031891 Available at <http://www.impact-international.com/uploads/files/Final%20report%20to%20DFID%2012%20May%202011.pdf> accessed 29/07/12.

PARTOGRAPH											
Name	Gravida	Para	Hospital no.								
Date of admission	Time of admission		Ruptured membranes			hours					
Fetal Heart Rate											
Liquor Moulding											
Cervix (cm) (Fict. "X")											
Descent of Head (Fict. "D")											
Time											
Contractions per 10 mins.											
Oxytocin U/L Drops/min.											
Drugs given and IV fluids											
Pulse and BP											
Temp. °C											
Urine protein											
Urine acetone											
Urine volume											

Figure 4. The partograph

Summary of practical tips that can inform practice

- Screen for risks for obstructed labour in antenatal care.
- Book elective Caesarean sections for those who cannot deliver normally.
- Encourage all women to consider how they would get to hospital if necessary.
- Educate the community about taking women into hospital if labour is longer than 12 hours.
- Use the partograph and refer women who do not progress.