

The Management Of High Risk Labours By Midwives With Advanced Training

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OPSOMMING

Die resultate van die behandeling van 162 hoërisikopasiënte deur vroedvroue wat vir 'n omvattende rol opgelei is, word hier aangebied. Die slotsom is dat die vakuüm-ekstraktor 'n veilige instrument is in die hande van 'n vroedvrou met gevorderde opleiding

INTRODUCTION

A survey undertaken in 1977¹ demonstrated that 53,3 percent of women delivering in a rural obstetric unit had high risk factors demanding hospital delivery. The present shortage of medical staff available in such areas demands that even patients with high risk factors must often be delivered by midwives. Midwives are however, usually trained on the understanding that all patients with significant risk factors should be delivered by medical staff, and thus they are frequently ill-equipped for this extended role.

This study was undertaken in order to assess the results obtained when midwives trained for this extended role manage such patients. Their training and in-service supervision is described elsewhere².

MATERIALS AND METHODS

Two groups of high risk patients were chosen for this study. The first comprised those for trial of labour because they had been found to have small pelvis during antenatal assessment, and the second, those who had had a previous Caesarean section, and had been designated for an attempt at vaginal delivery.

Patients with Small Pelvis

The trial of labour group were selected at the time of digital pelvic assessment carried out by a medical officer or a midwife with post-graduate training. The criteria for selection were as follows:

- (1) An obstetric conjugate of 10 cms or less, with a gynaecoid, platypelloid or anthropoid pelvic brim shape.

- (2) An Otto's or android pelvic shape.

- (3) A straight sacrum or significant funnelling of the pelvic side walls, with a small intertuberous or interspinous diameter, indicating contraction of the mid-cavity or outlet of the pelvis.

There were 126 patients in this group.

Patients with Previous Caesarean Section Scars

Patients who had had a previous Caesarean section were all referred to the medical officer for a decision as to the mode of delivery. There were 58 patients in this group. Twenty-two were managed by elective Caesarean section, because they had had two or more previous Caesarean sections, a previous classical Caesarean section, a Caesarean section followed by two or more vaginal deliveries, or because there was an additional risk factor such as post-maturity, hypertension, or a particularly small pelvis. Thirty-six patients were allowed to labour.

Management of Labour

All patients were managed in the hospital labour ward with the aid of the cervicograph by Philpott³. Liberal use was made of intravenous infusions. Analgesia was provided in the form of intramuscular Pethilorfan (Pethidine 100 mg and Levallorphan 1,25 mg. Roche). Each patient was managed by the midwife provided her progress in labour remained to the left of the "Alert" (first) Line on the cervicograph, and provided the fetus was a normal vertex presentation. The medical officer was required to assess the patient if the rate of dilatation of the cervix was slower than that. He usually took over management from that point, although some patients

were treated with an oxytocic infusion, and subsequently delivered by the midwife.

In the second stage of labour an attempt was made to deliver all patients with a previous Caesarean section scar by vacuum extraction. This was followed by digital exploration of the scar. Provided strict criteria were fulfilled, such operations were performed by the super-grade midwife. Patients for trial of labour were allowed to bear down for 20 minutes in the second stage, provided there was no evidence of fetal distress or hypertension. If they failed to deliver within this time period, and the necessary criteria were fulfilled, the midwife proceeded with an assisted vaginal delivery. Where there was doubt, the doctor was summoned to help assess and manage the patient.

The criteria to be fulfilled before a midwife attempted a vacuum extraction, were as follows:

- (1) The cervix had to be fully dilated.
- (2) The amount of fetal head palpable above the brim of the pelvis had to be two-fifths or less.
- (3) Movement of the head with contractions and bearing down efforts had to be good, the vertex descending to the level of or below the ischial spines.
- (4) No more than 2+ moulding of the fetal skull bones was permitted.

RESULTS

The results of the management of the "trial of labour" group were as follows:

48 patients achieved an assisted vaginal delivery;
35 patients required Caesarean section;
42 were delivered by vacuum extraction (one with the aid of symphysiotomy);

1 patient who had an intra-uterine death due to syphilis, required perforation of the fetal skull in order to allow vaginal delivery. This latter baby was the only perinatal death in this group.

The indications for Caesarean section and operative vaginal delivery are set out in Tables 1 and 2. Seventeen of the 42 vacuum extractions were performed by midwives. The mean Apgar score of this group was 8. No Apgar score was below 6. The mean Apgar score of the babies delivered by medical officers was 7, 6, with the lowest reading 2. This was a reflection of the fact that difficult operations were selected for the doctor to perform.

The accuracy of the antenatal selection of patients by midwives and medical officers for the "trial of labour group" may be gauged by the fact that 64,3 percent of the patients of this group required either Caesarean section or vacuum extraction, while 10,5 percent of the patients who were judged to have normal pelvis and who had not had a previous Caesarean section required such assistance⁴.

Results of the management of patients with previous Caesarean section scars are presented in Table 3. All patients exhibiting any signs of cephalopelvic disproportion were managed by the medical officer on call as soon as such signs were detected. Eight of these required Caesarean section, while a further patient required Caesarean section for cord presentation. Two were delivered by vacuum extraction. One patient ruptured her scar: this was repaired at laparotomy without difficulty.

Patients who progressed normally in labour were delivered by midwives. Eighteen were delivered with the aid of the vacuum extractor, and 7 delivered spontaneously before the instrument could be applied.

The single neonatal death in this group was due to a major cardiac defect in a baby with a coagulation defect. It is possible that the latter was due to unrecognised hypoxia.

DISCUSSION

The perinatal mortality of this group of 162 high risk patients was 12,0 per thousand. This figure excludes the 22 patients delivered by elective Caesarean section. These results suggest that midwives with advanced training can justifiably look after selected patients with previous Caesarean section scars and most patients with small pelvis, in labour. They also suggest that the vacuum extractor is a safe instrument in the hands of a well-trained midwife.

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4. Op. Cit. (1).

TABLE I

"TRIAL OF LABOUR" GROUP PRIMARY INDICATIONS FOR CAESAREAN SECTION

CEPHALO-PELVIC DISPROPORTION	29
INCO-ORDINATE UTERINE ACTION	2
BROW PRESENTATION	1
BREECH PRESENTATION	1
FETAL DISTRESS	1

TABLE II

"TRIAL OF LABOUR" GROUP PRIMARY INDICATIONS FOR OPERATIVE VAGINAL DELIVERY

RELATIVE CEPHALO-PELVIC DISPROPORTION	20
FETAL DISTRESS	2
MATERNAL FATIGUE	17
EPIDURAL ANAESTHESIA WITH OR WITHOUT DISPROPORTION	3

TABLE III

**RESULTS OF CONSERVATIVE MANAGEMENT OF PATIENTS WITH
A PREVIOUS LOWER SEGMENT CAESAREAN SECTION SCAR**

COMPLICATIONS

	TOTAL	RUPTURED SCAR	POST-PARTUM HAEMORRHAGE	NEONATAL DEATHS
A. Successful vaginal deliveries:				
Spontaneous vaginal delivery	7	0	0	0
Vacuum extraction by super-grade midwife	18	0	1	1
Vacuum extraction by medical officer	2	1	1	0
B. Emergency Caesarean sections:				
Cephalo-pelvic disproportion	8	0	—	0
Cord presentation	1	0	—	0

**SELF-HELP GROUPS: SHARING IN CARING:
DEPRESSIVES ASSOCIATED**

Often the best person to provide comfort is someone who has suffered similarly. Self-help and mutual help groups are based on this idea. Well established groups such as Alcoholics Anonymous have demonstrated their value in providing continuing support to sustain improved health. In America an estimated half a million groups exist. There is a similar increasing trend in the U.K. where a Self-help Clearing House was established by a self-help group for the disabled in 1977. This central agency registers self-help groups, their aims, methods and geographical distribution — thus preventing duplication, promoting exchange of ideas and providing advice to communities wishing to start new groups. These self-supporting groups usually originate from a sufferer or closely effected relative. The type of help offered by these groups differs from that provided by the health and social services — it is in the form of social contacts, over a long period of time. These groups should be seen as useful adjuncts to available services; and nurses should be aware of relevant groups as they are in the ideal position to pass on information. An example of these groups is "Depressives Associated" — initiated by a nurse who, suffering from depression, was dismayed at the lack of understanding and tolerance from others including the medical profession. Presently one hundred D.A. groups exist throughout Britain. Most members are women — particularly career women who find it hard to settle down to being housewives and who suffer from the "non-pressures" of life. Positive help is given by stressing the importance of continued interests and mental activity. Where no group exists, help may be given by maintaining telephone contact, members visiting or via a letter circle. (Jones, I.H., *Nursing Times*, 18 October 1979:1816).

(Derryn Nieman)

**PARENTS OF HOSPITALIZED CHILDREN HAVE
NEEDS TOO**

The stress and anxiety of the hospitalized child is often related to the stress exhibited by parents.

Emotions and attitudes are easily communicated to their children. Consequently, identification of the parents' needs would also help the child. Parents need to be sure that their child is clean, comfortable and gently cared for. Nurses must provide competent as well as creative care e.g. — putting ribbons in a little girl's hair shows extra care. Parents also need to feel capable as parents. It is often implied that they cannot even give their child a drink because no one tells them they may. Nurses must show by action and words that they are aware of the parents' importance to their child — e.g. encouraging them to visit often, and allowing them to participate in the care of their child — bathing, feeding, etc. Parents also need to be able to express and discuss their feelings about their child's hospitalization. The nurse should provide creative listening while reflecting acceptance of the parents by avoiding judgemental statements.

When parents are allowed to express their feelings they often reorient their perspective about their problems and create their own solutions. Parents need to learn to be more honest with their children. Many lie to their children about what is to happen to them in hospital, being unaware of the adaptability of children to even accept painful procedures if adequately prepared. The nurse should be honest with a child and expressions such as "that doesn't hurt" when it does should be avoided. A valuable tool would be the inclusion in the patient's charts, of a sheet related specifically to the parent on which comments about their visits, a record of teaching and identified needs might be entered. (Smitherman, C.H. *American Journal of Nursing*, August 1979:1423).

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