BROW PRESENTATION

(A Clinical Study Of 36 Cases)

by

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Brow presentation is the most unfavourable because if it remains undiagnosed until late in labour, it becomes dangerous both to the mother and the foetus.

Incidence

The present study consists of study of 36 cases of brow presentation diagnosed during labour. There were 13,488 deliveries during the period of January to June, 1972 of which 24 were emergency admissions. The incidence reported by other authors is shown in Table I. The incidence in our series of brow presentation is high because 66.6% cases were emergency admissions and out of these 75% were multiparae. The other cause of its high incidence is attributed to the high incidence of other abnormal presentations admitted in Zenana Hospital.

The causes for brow presentation are contracted pelvis, large foetus, hydrocephalus, pelvic tumours, placenta praevia, tight loop of cord round neck, multiparity, premature foetus, twin pregnancy and dolicocephalic head. The excessive extensor tone of the muscles of the back and neck of the foetus is one of the etiological factors (Gibberd 1935, 1939). The etiological factors responsible for brow presentation in the present series and in series reported by other authors are shown in Table II. In 13 cases the

TABLE I

Showing Incidence of Brow Presentation

	Deliveries	No. of cases	Incidence
Posner (1957)	50345	23	1 in 2189
F. J. Browne (1964)	-	206	1 in 2000
Masani (1954-1958)	43842	52	1 in 826
Mudaliar & Menon (1959-60)	25804	28	1 in 921
Munro Kerr	-	-	1 is 3000 to 4000
Ian Donald	-	-	1 in 3000
Present series (Jan., 1968 to June 1972)	13488	36	1 in 375

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TABLE II

Showing Etiological Factors in Brow Presentation and Compared with Other Authors

	Posner %	F. J. Browne %	Munrokerr %	Present series %
Contracted pelvis	-	-	53.8	22.2
Big baby	13.0	-	-	22.2
Grand multipara	13.0	1.8	-	13.8
Congenital malformation	-	-	4.6	-
Loop of cord round the neck	17.3	0.4	-	2.6
Short cord	4.3	-	-	-
Hydrocephalus	-	0.8	-	2.6
Meningoencephalocele	-	0.8	-	-
Second twin	-	0.4	-	-
Antenatal version	-	0.4	-	-
Unknown cause	-	-	-	36.1

cause was not known, of which 4 were primiparae, one second para, four third para, 3 were fourth para and one was fifth para.

In two cases there was repeated brow presentation. The cause of repeated brow thrice in one case and twice in another case could not be detected, it was probably due to excessive tone of the extensor muscles of the neck.

Cephalopelvic disproportion was present in 16 cases as an etiological factor. In 8 cases it was due to generally contracted pelvis and in 8 it was due to big baby. Grandmultiparity was another main etiological factor in 5 cases. In one it was due to hydrocephalus and in one it was due to loop of cord round the neck.

Complications of Brow Presentation

(1) *Prolonged labour*: The labour was prolonged (24 hours and more) in 11 cases (30.5%), out of which 2 were primiparae and 9 were multiparae. In

Etiology

Posner *et al* (1957) series, in 11 cases (50%) the labour was prolonged of which 5 were primiparae and 6 were multiparae. This high incidence in his series is attributed to his wait and watch policy for spontaneous rectification.

(2) *Premature Rupture of Membranes*: In the present series membranes were absent in 20 cases on admission.

(3) *Obstructed Labour Leading to Rupture Uterus*: In the present series there were 3 cases of ruptured uterus. All were emergency cases and were multiparas.

In F. J. Browne's (1964) series there was one case of rupture uterus amongst 206 cases. The case was of failed forceps before admission for which caesarean hysterectomy was done.

The other complications noted by others are uterine inertia in 23 cases of Hellman *et al* (1950) series, prolapse cord was present in 3 of 20 cases in F. J. Browne (1964) series.

Management

There are different views regarding the management of brow presentation. According to F. J. Browne (1964) caesarean section should be done in cases of pelvic contraction of mild degree, elderly primipara, big baby and in a woman

who demands a living child. If the diagnosis is made when patient is in labour and there are no signs of foetal or maternal distress an attitude of watchful expectancy may be adopted in the hope of spontaneous rectification into a face or a vertex followed by natural delivery or easy forceps delivery. This happeaned in 10% of his 206 cases of which one baby was weighing 9 lbs. 13 ozs. and was alive.

In the present series, the attitude of watchful expectancy was not adopted but still 2 patients (5.5%) delivered spontaneously as brow before caesarean section could be done. One was a third para with two previous caesarean sections done for brow and another was a second para with previous caesarean section done for brow. Both the babies were weighing 250 gms. In Morris (1953) series, 7 cases (13%) out of 53 delivered spontaneously, in Posner *et al* (1957) series, 74% delivered spontaneously or by low forceps. Twelve (70%) of 17 full term brow presentations in his series delivered spontaneously or by low forceps of which 3 babies were over 9 lbs., 3 by caesarean section and 2 by internal podalic version and breech extraction. This indicates that brow can deliver spontaneously provided all factors for normal delivery are favourable and the patient is under close observation of an experienced obstetrician. Posner is in favour of trial labour if the diagnosis is made early, unless there is a complacating factor such as markedly contracted pelvis, elderly primiparae or severe preeclamptic toxaemia.

As suggested by F. J. Browne if during watchful expectancy spontaneous rectification does not occur manual correction under anaesthesia is attempted to turn it into vertex or face and delivery is felt to nature or is assisted by forceps. If this fails it is best to do caesarean section. In 206 cases conversion into face or vertex were employed with equal frequency and failed in 10 cases. In Posner *et al* (1957) series, conversion of brow to an occiput presentation was necessary twice only and according to him many conversions taking place spontaneously. Munro Kerr is in favour of early conversion into vertex or face soon after membranes have ruptured. If membranes are intact he is in favour of waiting till full dilatation of the cervix to prevent prolapse of the cord. In the present series no conversion was tried.

Caesarean Section

According to Munro Kerr caesarean section is the treatment indicated for the great majority of the cases diagnosed during early or late in labour. Even if the child is recently dead caesarean section may still be preferable to craniotomy and forceful vaginal delivery. In the present series, caesarean section rate was 80% (30 caases), in contrast to F. J. Browne in whose series caesarean section rate was 34%. According to Masani (1969) caesarean section is required in 50-60% of the cases of brow presentation. In Posner *et al* (1957) series, caesarean section was done in 4.3% of cases. In the present series the high rate of caesarean section is due to the fact that we have not tried conversion of brow into face or vertex in any case and nor did we wait for spontaneous rectification. Caesarean section was done immediately after the diagnosis of brow was made, whether the patient was in early or late labour. In one case even when the foetal heart was absent caesarean section was done as the case was of threatening rupture uterus with a hydrocephalic baby. In view of con-

servative management of brow presentation in labour by other authors and their low incidence caesarean section with same perinatal mortality as compared to our series with caesarean section which was done in 80% of cases it is worth while considering whether it is better to follow expectant line of treatment or to do a caesarean section.

Craniotomy

In neglected brow cases with absent foetal heart or with foetal malformation craniotomy is done. In the present series craniotomy was done in one case, the baby weighing 4350 gms.

Internal Podalic Version

According to Masani in an occassional case internal podalic version can be resorted to in a multipara with good obstetrical history and membranes have recently ruptured. This is not favoured by Munro Kerr. The only place of internal podalic version is in delivery of second of twins, malformed or dead foetus. In Posner *et al* (1957) series version and breech extraction was done in 2 cases of full term brow out of 23 cases in his series. In the present series internal podalic version was not done for the management of brow.

Diagnosis

In the present series in all the cases the diagnosis was made on vaginal examination only. In one case at 1/5, dilatation of cervix, in 16 at 2/5th, in 8 at 3/5, in 2 at 4/5th and in 9 at full dilatation of the cervix. In one case on admission diagnosis was missed where the cervix was one fifth dilated and it was diagnosed at 2/5th dilatation of the cervix. In 16 cases it was diagnosed with intact membranes.

Perinatal Mortality and Morbidity

The higher foetal mortality is due to injury from operative procedures, prolonged labour, cerebral compression, interference of return of circulation from the head by compression of the neck against the pubis and suffocation or even fracture caused by compression of the trachea and larynx against the pubic bones (Greenhill, 1965). The perinatal mortality in F. J. Browne series was 3.9%. In the present series the perinatal mortality was 19.4%. Out of these 5 were stillbirths who came with absent foetal heart on admission. In one case baby was deeply asphyxiated at birth and could not be revived but was hydrocephalic, had meningocele and weighed 10 lbs. and 5 ozs. Caesarean section was done because there was threatening rupture of uterus.

One baby died of bronchopneumonia on the 7th day. Regarding the morbidity, one baby handled outside had fracture of mandible and there was no sucking reflex; caesarean section was done immediately after admission. Baby was given tube feeding and was discharged against advise and hence no further follow up was possible.

Maternal Mortality

It was nil in the present and Posner *et al*, series. In F. J. Browne series, 3 mothers died out of 20 cases.

Maternal morbidity was present in 13.8% of the cases in the form of:

Burst abdomen	.. 1 case
Urinary infection	.. 1 case
Postoperative pyrexia and paralytic ileus	.. 2 cases
Injection abscess	.. 1 case
Gaped wound	.. 1 case

Summary

1. The clinical study of 26 cases of brow presentation is presented. The incidence was 1 in 375 deliveries.

2. The main etiological factor in our series was cephalopelvic disproportion, 44.4%.

3. Rupture uterus was present in 3 cases.

4. Two cases delivered spontaneously and in 80% of cases caesarean section was done as soon as brow presentation was diagnosed.

5. The perinatal mortality was 19.4%.

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