

ROLE OF FORCEPS IN DELIVERY OF AFTERCOMING HEAD OF BREECH

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SUMMARY

This study seeks to analyse the fetal outcome in cases where a forceps was applied for the delivery of aftercoming head of breech as compared to a vaginal assisted breech delivery with Mauriceau-Smellie-Veit technique being used for the delivery of aftercoming head. The 54 cases were studied at Nowrosjee Wadia Maternity Hospital with respect to parity, type of breech, birth weight, duration of second stage and foetal outcome.

In the group where forceps was utilized, only 7 patients (25.9%) had a second stage prolonged beyond 30 minutes as compared to 14 patients (51.85%) in the group delivered without a forceps application.

A significant improvement in the 1 minute Apgar Score was seen when the baby was delivered with the help of forceps.

Introduction

The vaginal delivery of breech presentation is a test of the clinical acumen and skill of the obstetrician, the most challenging part being the successful delivery of the aftercoming head. A variety of manouveres have been described for the delivery of the aftercoming head but Munro Kerr had no hesitation in describing the forceps for the delivery of aftercoming head as the method of choice.

Material and Methods

The study was conducted at the Nowrosjee Wadia Maternity Hospital. 54 patients who presented with a breech presentation in labour and were suitable for a vaginal delivery were selected for the study.

Alternate patients were managed with assisted breech delivery with forceps for aftercoming head while remaining half were delivered by assisted breech delivery followed by Mauriceau-Smellie-Veit technique for the delivery of the aftercoming head.

A comparative analysis of the two groups was done with respect to parity, type of breech, birth weight, duration of second stage and foetal outcome (morbidity and mortality) was done.

Results

Fifty nine per cent of the patients who delivered without forceps were primis as compared to 52% primis in patients who delivered with the forceps.

There was no significant difference seen in the type of breech presentation in the

two groups, frank breech being the commonest type.

There were 4 (14.8%) babies with birth weight less than 2.00 Kgs in the group delivered by forceps as compared to 2 (7.4%) in the group delivered by Mauriceau-Smellie-Veit technique.

TABLE I

| Parity | Without Forceps | With Forceps |
|--------|-----------------|--------------|
| I | 16 (59.25%) | 14 (51.85%) |
| II, IV | 11 (40.74%) | 12 (44.44%) |
| VI | 0 | 1 (3.73%) |

TABLE II

| Weight | Without Forceps | With Forceps |
|-------------|-----------------|--------------|
| 1.5 Kg | 0 | 1 (3.73%) |
| 1.51-2 Kg | 2 (7.4%) | 4 (14.81%) |
| 2.01-2.5 Kg | 16 (59.25%) | 9 (33.33%) |
| 2.51-3 Kg | 6 (22.22%) | 11 (40.79%) |
| 3.01 Kg | 3 (11.11%) | 2 (7.4%) |

As per Table III only 7 patients (25.9%) had a second stage of labour prolonged beyond 30 minutes in the group delivered with forceps, as compared to 14 patients (51.85%) in the group delivered without forceps application.

TABLE III

| Duration of 2nd Stage | Without Forceps | With Forceps |
|-----------------------|-----------------|--------------|
| 15 min | 4 (14.81%) | 2 (7.4%) |
| 15-30 min | 9 (33.33%) | 18 (66.66%) |
| 30-45 min | 14 (51.85%) | 7 (25.9%) |

Table IV demonstrates that there is a significant improvement in the 1 minute Apgar Score when the baby is delivered with the help of forceps. 26 patients (96.2%) who were delivered with forceps had a good Apgar Score at birth. Only one baby (3.73%) had an Apgar Score between 4-7 at one minute in the forceps group as compared to 6 (22.22%) in the group delivered without forceps.

TABLE IV

| Apgar at 1 Min | Without Forceps | With Forceps |
|----------------|-----------------|--------------|
| 1-3 | 7 (25.9%) | 0 |
| 4-7 | 6 (22.22%) | 1 (3.73%) |
| 8-10 | 14 (51.85%) | 26 (96.2%) |

TABLE V

| | Without Forceps | With Forceps |
|-----------|-----------------|--------------|
| Mortality | 1 (3.73%) | 0 |
| Morbidity | 4 (14.81%) | 1 (3.73%) |

The morbidity and mortality of a vaginal breech delivery were reduced significantly by the application of forceps for the aftercoming head. There was no fetal mortality in the group in which forceps was utilized and morbidity was 3.73% as compared to 14.8% of the group with delivery by Mauriceau-Smellie-Veit technique.

Discussion

As early as in 1955, Schmitz *et al* considered the application of forceps for aftercoming head of breech as a desirable mode of delivery. A prophylactic forceps is preferred since it avoids damage to the shoulder, neck and mouth which is seen

to occur with conventional assisted breech delivery. The flexion is easily and safely maintained and with the help of forceps the rate of descent and delivery is accurately controlled preventing the head from slipping too rapidly over the perineum with sudden release of pressure.

Application of forceps was originally described by Smellie and then recommended by many other writers like Greig (1945) and Moore and Steptoe (1943).

In his retrospective study of 1423 live-born breech, Milner (1975) demonstrated a significant decline in morbidity and mortality when forceps was applied for after coming head of infants between 1-3 Kg. The findings of the current study completely corroborates with this study.

Law (1955) showed the increasing incidence of forceps for aftercoming head in his study of 136 patients from 1949-1953. The poor condition at birth was seen in 20.8% of patients where no forceps was applied as compared to 15.8% of patients in the group where general anaesthesia

followed by forceps for aftercoming head was used.

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