

DECOMPRESSIVE CRANIOTOMY IN THE MANAGEMENT OF ENTRAPMENT OF AFTER COMING HEAD OF BREECH WITH INTRAPARTUM FETAL DEATH IN A RURAL CENTRE: A CASE REPORT

¹Bakare Babatola, MBch.B, FWACS, Consultant; ²Badejoko O.O, MBch.B, FWACS, FMCOG; Consultant; ³Akadiri Olumide, MBBS, FWACS; Consultant, ⁴Akintayo. Akinyemi. A, MBBS, FWACS, Consultant.

^{1&3}Department of Obstetrics & Gynaecology, State Specialist Hospital Ondo, Ondo State.

²Department of Obstetrics, Gynaecology & Perinatology, Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, Osun State, Nigeria.

⁴Department of Obstetrics & Gynaecology, Ekiti State University Teaching Hospital, Ado-Ekiti, Ekiti State.

ABSTRACT

Background: Several studies have demonstrated a high prevalence of strong aversion for caesarean section among Nigerian women; hence, interventions of proven efficacy in reducing caesarean section rate are crucial. Although controversial in modern day obstetric practice, destructive operation is still of importance in reducing caesarean section rates in Nigeria, especially in the rural setting.

Case: A case of breech delivery complicated with intra-partum fetal death and entrapment of the after-coming head is presented. The patient presented with a fresh stillbirth dangling in the introitus in breech presentation with the head entrapped in the pelvis. A de-compressive craniotomy was performed with subsequent delivery of the entrapped after-coming head.

Results: There were no post-procedure complications.

Conclusion: Training of medical personnel in the skills of destructive operation is recommended, as it still has a role in reducing caesarean section in rural settings.

INTRODUCTION

Fetal Mal-presentation occurs in about 4% of all term pregnancies. The most common malpresentation by far is breech presentation where the fetal longitudinal lie is oriented parallel to the long axis of the uterus and the buttocks are near the cervix, occurring in 2-4% of all deliveries.^{1,2}

The Management of breech presentation is always controversial and considered a challenge for obstetricians. The perinatal mortality in breech delivery is 4-10 times that of vertex

delivery³. This high perinatal mortality is attributed partly to the associated conditions encountered with breech like prematurity and congenital anomalies and more importantly to the mechanical and hypoxic damage occurring

Corresponding Author: Dr Bakare Babatola.
Department of Obstetrics & Gynaecology, State Specialist Hospital, Ondo, Ondo State, Nigeria.
Tel +2348032483139

Email: lobak4christ@gmail.com

during birth⁴.

Fetal head entrapment may result from soft (an incompletely dilated cervix) and bony component of the maternal pelvis (a head that lacks time to mold to the maternal pelvis). This complication occurs in up to 8.5% of vaginal breech deliveries⁵. Management of this complication poses great challenges to the obstetrician most especially in a living fetus, however when the fetus is dead, cephalopelvic disproportion can be relieved by reducing the size of the head through craniotomy.

Case: A 34 year old woman, gravida 3, para 2, was admitted to our delivery room at 38 weeks gestation, following 4 hours history of attempt at delivery of the entrapped after coming head of breech in a delivery home by a traditional birth attendant. The dead fetus was found dangling in the introitus with the head entrapped in the pelvis. Resuscitative measures were commenced and the bladder was emptied, leaving the urethral catheter in-situ to monitor urinary output. The fetal skull was perforated at the posterior frontanelle with a pair of Mayo's Scissors which was then opened repeatedly in all directions, to break the septa and facilitate evacuation of brain substance. A size 6 canulae of a manual vacuum aspiration kit was then introduced into the skull through the perforation, the charged aspirator was connected to it and it's vacuum released to suction the brain tissue continuously until the fetal head collapsed. Two Kocher's forceps were clamped on to the incised scalp and gentle traction was applied to complete the delivery. The Placenta was delivered by controlled cord traction and the third stage was actively managed. Genital exploration was done to exclude associated genital laceration. The patient was kept under

observation for about an hour in the labour ward and she was later transferred to the lying ward in stable condition.

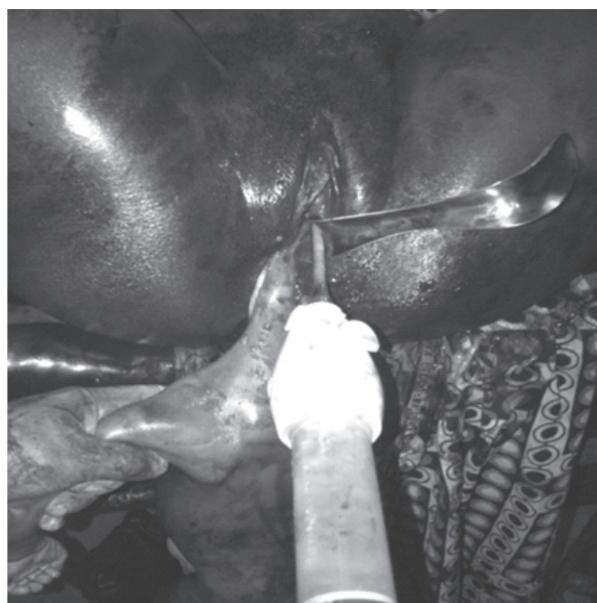


Fig 1: Suctioning Brain Substance with MVA Keit.



Fig 2: Delivered entrapped after coming head.

DISCUSSIONS

Entrapment of the after-coming head is a rare but dreaded risk of breech delivery. Despite proper management, this catastrophe may still occur without warning in about 1 in 12 vaginal breech deliveries⁶. Manoeuvres such as application of obstetrics forceps, administration of halothane, intravenous

terbulatine or nitro-glycerine to the mother or extension of the cervical incision have been used in the past to correct an entrapped head⁷, most especially when the fetus is still alive. There have been cases of successful outcomes after severe head entrapment of term infants using different techniques. These include abdominal rescue through a caesarean section incision once the head was entrapped with a good neonatal outcome⁸. Adoption of McRoberts manoeuvre has also been described⁹.

If the fetus is already dead, non-viable or unsalvageable as in this case, considering the need to reduce maternal morbidity that may be associated with delivery by caesarean section in the face of intrapatum fetal death, the psychological trauma, and the need to reduce caesarean section rate most especially in a rural centre like ours where there is strong aversion to caesarean section, craniotomy is the most commonly performed destructive operation¹⁰. It is usually indicated for delivery of a dead fetus in the cephalic presentation when neglected labour results in obstruction. In a breech presentation, the base of the occiput is perforated per vaginam to facilitate decompression. The method used here was described by Lister, where Mayo's scissors was improvised for Simpson's perforator. This is considered safe and relatively simpler than other alternative methods.

CONCLUSION

Despite the fact that the controversy around the management of breech at term has been resolved by the international multicentre randomised controlled Term Breech Trial showing that perinatal mortality, neonatal mortality, and serious neonatal morbidity was

significantly lower in the planned caesarean section group (1.6%) than in the planned vaginal birth group (5.0%)¹¹, unplanned complicated vaginal breech delivery will still be encountered most especially in the rural centers due to strong aversion to caesarean section by the parturients and the fact that breech foetuses will be encountered at advanced second stage of labour when caesarean section may be impractical, hence the need to maintain the skill in breech delivery and more importantly to be trained in the procedure of destructive operations if there is associated intrapatum fetal death as illustrated in this case report.

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