[Padmavathi et. al., Vol.5 (Iss.2): February, 2017] ISSN- 2350-0530(O), ISSN- 2394-3629(P)
ICV (Index Copernicus Value) 2015: 71.21 IF: 4.321 (CosmosImpactFactor), 2.532 (I2OR)
InfoBase Index IBI Factor 3.86

INTERNATIONAL JOURNAL OF RESEARCH – GRANTHAALAYAH
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STUDY OF PERINATAL MORTALITY IN TERM BREECH PRESENTATION WITH INCREASING CAESAREAN SECTION RATE

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DOI: https://doi.org/10.5281/zenodo.345442

Abstract

Breech presentation persists in 3-4% of all term deliveries. There is a threefold increase in perinatal mortality for breech infant delivered vaginally which is related to birth asphyxia and birth trauma. The most frequent cause of death in neonates delivered through breech is intracranial hemorrhage; so many obstetricians recommend caesarean section for breech presentation. It is a retrospective study regarding management of term breech presentation conducted in King George Hospital, Vishakhapatnam from 2012 to 2015 and the results are compared with a similar study conducted in 1981-1984.There is an increase in incidence of caesarean section and decrease in perinatal mortality in our present study when compared to previous study. Increase in caesarean section for breech delivery has decreased the overall incidence of perinatal mortality.

Keywords: Breech; Caesarean Section; Perinatal Mortality.

Cite This Article: Dr.T.Padmavathi, And Dr. Aruna. (2017). "STUDY OF PERINATAL MORTALITY IN TERM BREECH PRESENTATION WITH INCREASING CAESAREAN SECTION RATE." *International Journal of Research - Granthaalayah*, 5(2), 59-66. https://doi.org/10.5281/zenodo.345442.

1. Introduction

Breech presentation persists in 3-4% of all term deliveries. There is a threefold increase in perinatal mortality for breech infant delivered vaginally which is attributed to asphyxia and birth trauma. Birth trauma in breech can be intracerebral hemorrhage, cephalic hematoma, facial nerve palsy, brachial plexus lesion, fracture of clavicle, humerus or femur and other trauma. Breech presentation is associated with an increased risk of preterm birth, low birth weight2, 3 and perinatal morbidity and mortality4, 5. Perinatal mortality is defined as intrapartum death or death within a week following birth. It is a test of obstetrician's experience, skill and judgment in this context. Inspite of good antenatal care and new development in the art of obstetrics and better

hospital delivery facilities, breech is still one of the major obstetric problems. The most frequent cause of death in breech delivered through vagina is intracranial hemorrhage due to tentorial tears as a result of excessive pressure on after coming head of breech .Current obstetric thinking regarding vaginal delivery of term breech fetus has been tremendously influenced by the results reported from the "TERM BREECH TRIAL COLLOBORATIVE GROUP" [Hannah 2000]1 .So many of the obstetricians recommend caesarean section for breech presentation in view of all above mentioned risks.

2. Aims and Objectives

To study the management of term breech presentation and compare the outcomes of deliveries conducted during the period of 2012 to 2015 with that of study conducted from 1981-1984, in department of obstetrics and gynecology in King George Hospital, Vishakhapatnam. Changing trends in management of term breech delivery over last three decades.

3. Materials and Methods

It is a retrospective study of factors like mode of delivery, birth weight and perinatal outcome in breech deliveries carried out in the department of obstertrics and gynaecology from Jan 2012 to Dec 2015. The results are compared with similar study conducted between 1981- 1984.

Inclusion Criteria:

- All full-term breech presentations.
- All singleton pregnancy between 37-42 weeks' period of gestation.

Exclusion Criteria:

- Prematurity.
- Breech co existing with other medical disorders.
- Antepartum hemorrhage.
- Intrauterine deaths

4. Results and Discussions

Table 1: Comparison on incidence of breech presentation

Study period	2012- 2015	1981-1984
Total no of deliveries	9727	7297
Total no of breech	360	270
Incidence	3.7%	3.3%

ISSN- 2350-0530(O), ISSN- 2394-3629(P)
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InfoBase Index IBI Factor 3.86

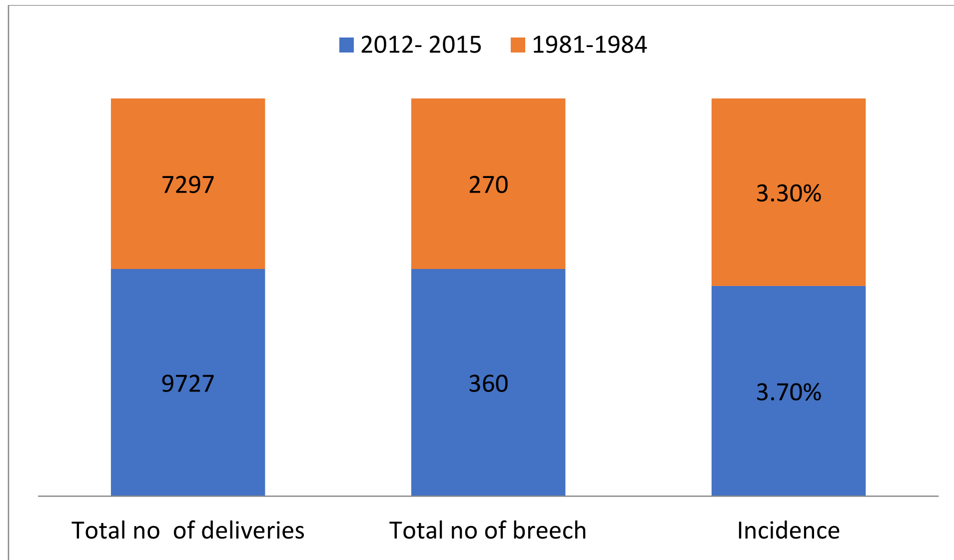

Figure 1: Incidence of breech presentation

Table 2: Comparison of rate of perinatal mortality

Study period	2012- 2015	1981-1984
No of cases	360	270
Perinatal deaths	39	86
Incidence	9%	32.9%

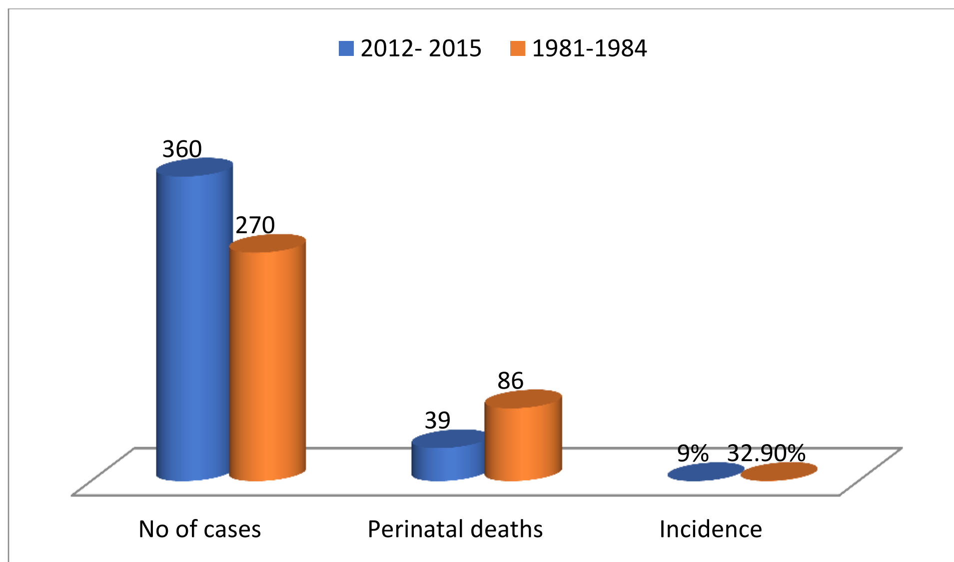

Figure 2: Comparison on perinatal mortality

Table 3: Incidence of caesarean section in term breech cases in relation to parity from 1981-84

Study period 1981-1984	Primi	Multi
Total no of cases with breech	114	156
No of c/s	39	58
Incidence	34%	37%

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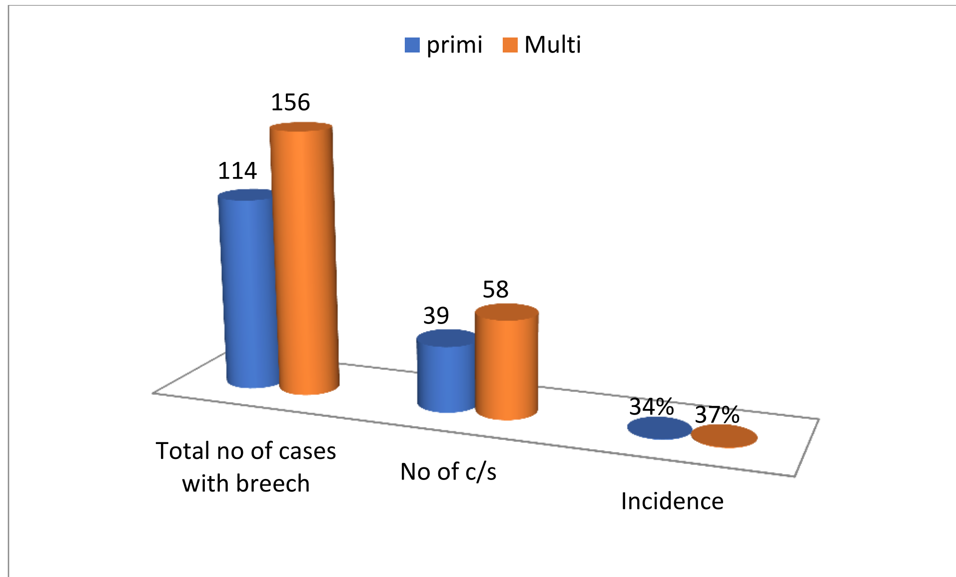

Figure 3: Comparison on parity from 1981-84

Table 4: Incidence of caesarean section in term breech cases in relation to parity from 2012-15

Study period 2012 - 2015	**Primi**	**Multi**
Total no of cases with breech	200	160
No of c/s	186	129
Incidence	93%	80%

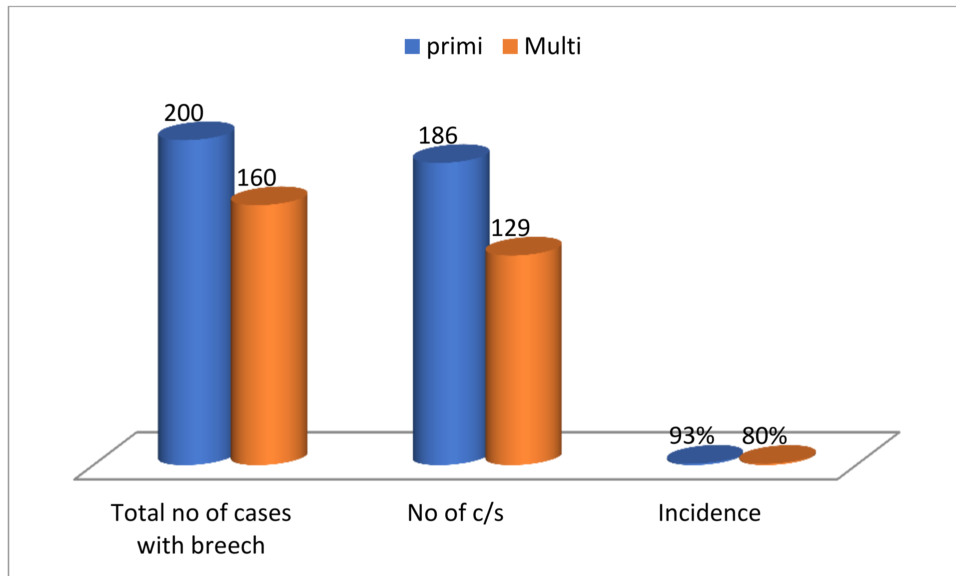

Figure 4: comparison on parity from 2012-15

Table 5: Chart on observing apgar score during both periods

APGAR score	Previous study(1981-84)	Present study(2012-15)
0	86	39
1-3	2	5
4-7	11	8
8-10	171	308
Total no of case	270	360

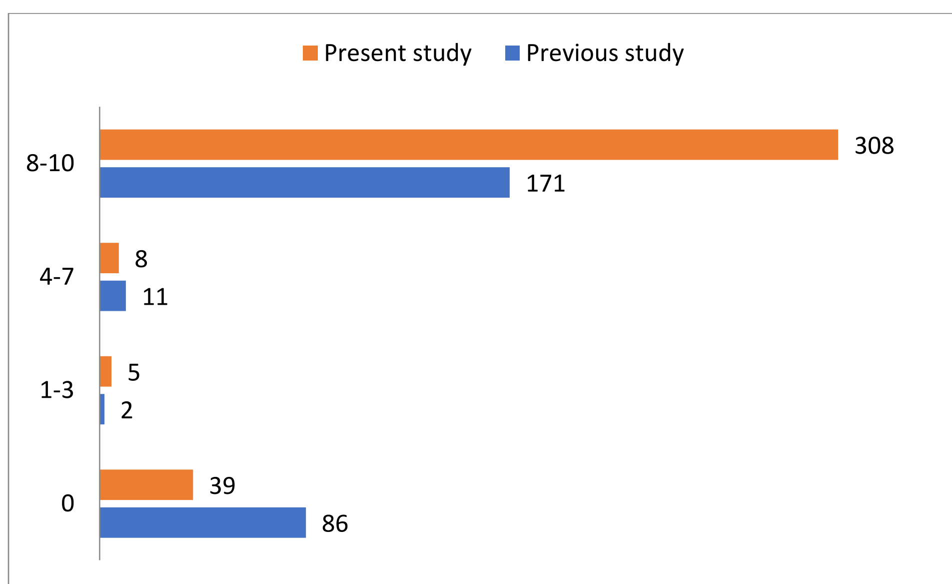

Figure 5: APGAR score observation during two periods

Table 6: Comparison of birth weight of babies and mode of delivery

	Total no of cases		No of C/S		Incidence	
Birth weight of baby	1981-1984	2012-2015	1981-1984	2012-2015	1981-1984	2012-2015
1.7-1.9kg	4	10	1	6	25%	60.0%
2-2.4kg	35	77	5	56	14.3%	72.0%
2.5-2.9kg	136	147	44	129	32.4%	87.0%
3.0-3.4kg	64	89	27	87	42.2%	97.0%
More than 3.5kg	31	37	20	37	64.5%	100.0%

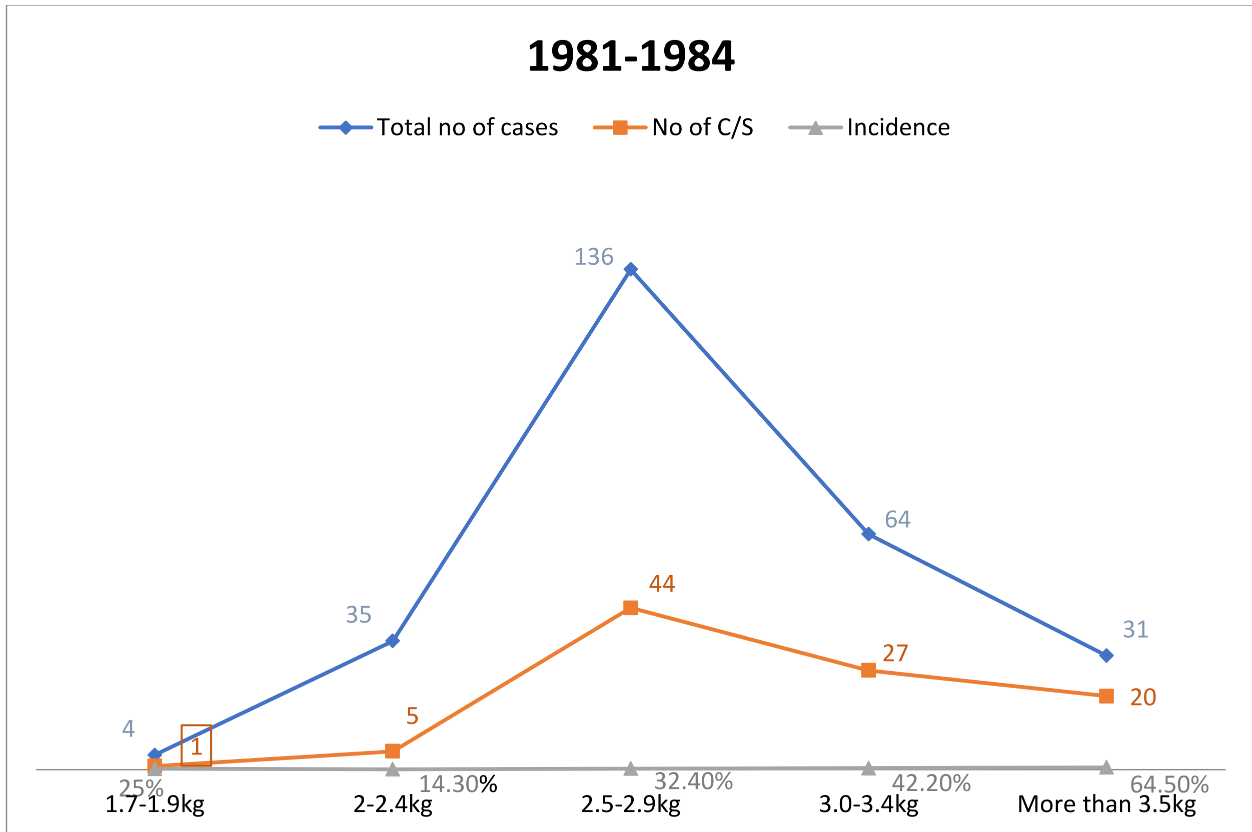

Figure 6: Comparison on birth weight and mode of delivery from 1981-1984

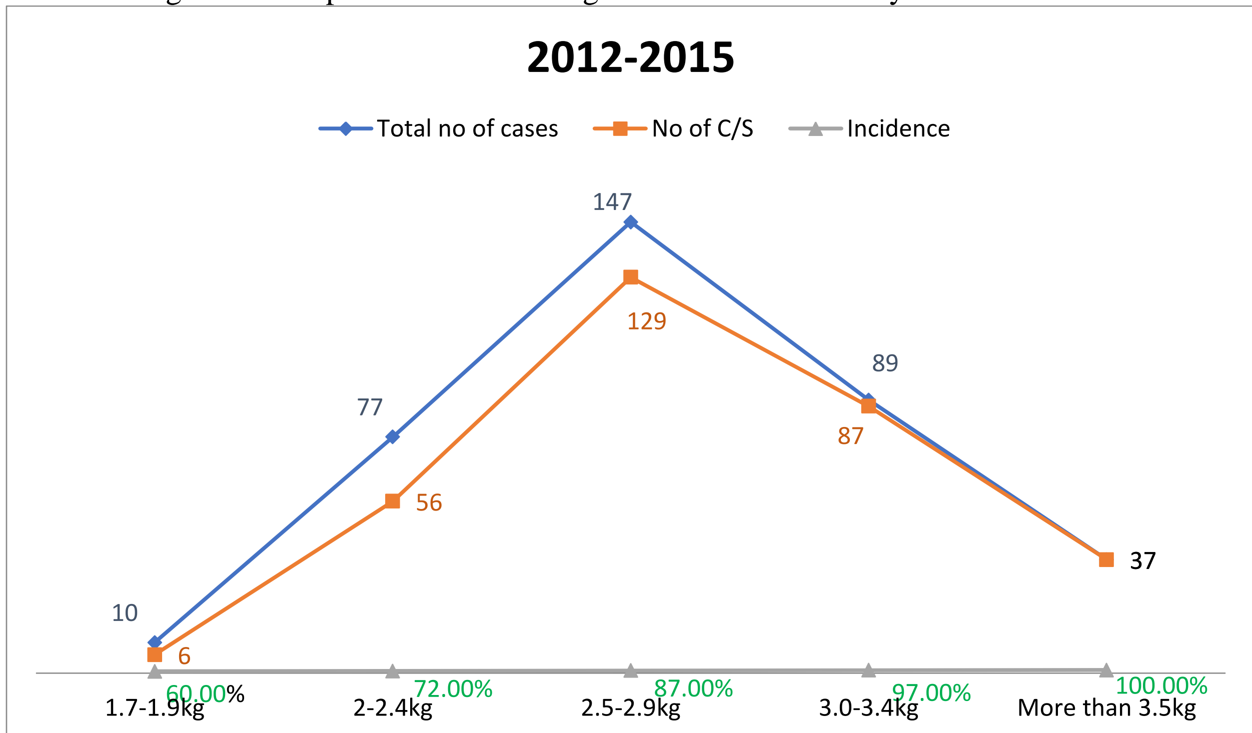

Figure 7: comparison on birth weight and mode of delivery from 2012-2015

5. Discussion

In 2000 a drastic change in policy concerning term breech occurred, all as a result of one randomised trial: the Term Breech Trial (TBT) 1, carried out by the Term Breech Trial Collaborative Group. The analyses were carried out according to the 'intention-to-treat' principle. Of the 1041 women assigned for planned CS, 941 (90.4%) delivered by CS. Of the 1042 women assigned for planned vaginal delivery, 591 (56.7%) delivered vaginally. The results showed a perinatal mortality of 1.3% after planned vaginal delivery and 0.3% after planned CS. In our study the perinatal mortality is 9% as compared to 32.9% during the period of 1981-84. In 1980 Collea et al., has analyzed 208 women with a singleton term fetus in frank breech6. Of those, 115 women were randomised to a trial of labour (TOL), but almost half of these had to be excluded because of the results of X-ray pelvimetry. Of the remaining 60, 49 (82%) delivered vaginally without perinatal deaths, but 2 infants had a persistent brachial plexus palsy.In our present study out of 360 cases, 45(12.5%), were delivered vaginally with a perinatal mortality of 0.3%. Apgar scores are used to assess the condition of the newborn in the first critical minutes of life and can be useful in evaluating neonatal resuscitation and survival7, 8, especially in low resource settings. Stillbirths and Apgar scores are important indicators of the quality of obstetric care9,10.In our present study newborn with low apgar score are less in number(10.8%) when compared with previos study(31.8%).Hence ,the overall perinatal mortality is reduced when compared to previous study from 1981-84.

6. Conclusion

The incidence of breech presentation, over last 3 decades didn't change but the perinatal mortality has been reduced by 4.6 times. The incidence of caesarean section increased by two and half times. In our present study, we almost preferred operative delivery in primigravida.

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