Research Article ISSN 2835-6276

American Journal of Medical and Clinical Research & Reviews

Determinants Of The Neonatal Prognosis In Briech Delivery In Primipparous About 627 Cases At The Nabil Choucair Health Center In Dakar, Senegal From 2005 To 2023.

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Received: 10 Aug 2024; Accepted: 19 Aug 2024; Published: 25 Aug 2024

Citation: M. Cisse. Determinants Of The Neonatal Prognosis In Briech Delivery In Primipparous About 627 Cases At The Nabil Choucair Health Center In Dakar, Senegal From 2005 To 2023. AJMCRR 2024; 3(8): 1-8.

ABSTRACT

OBJECTIVES: *The objectives were to describe the frequency and sociodemographic profile of primiparous women with fetuses in breech presentation, and to assess the maternofetal prognosis of breech presentation in primiparous women.*

MATERIALS AND METHODS*: This was a retrospective, descriptive and analytical study carried out at the Nabil Choucair Health Center over a period from January 1, 2005 to December 31, 2023. The study included all primiparous women carrying a singleton pregnancy. whose term was greater than 22 weeks of amenorrhea who came to give birth at the Nabil Choucair health center. Patients whose files were unusable due to a significant number of missing data, as well as terminated pregnancies were excluded.*

Data entry and analysis were carried out using Excel software. It included two parts: descriptive analysis and analytical analysis.

In the descriptive analysis, the quantitative variables were described in number, percentage and average.

The analytical study consisted of researching the link between the route of delivery and the parameters which can influence it theoretically and thus as well as the maternofetal prognosis. The Chi2 test was used for comparison of proportion. The difference was statistically significant when the p value was strictly less than 0.05. The Odds surrounded by the 95% confidence interval made it possible to determine the strength of the link.

***CONCLUSION**: Vaginal delivery of breech presentation in primiparous women is still possible in a level II maternity ward with an operating theater. Indications for cesarean section should be reserved for breech presentations in primiparous women associated with other risk factors.*

KEYWORDS: Breech presentation, Primiparous, Childbirth, Nabil CHOUCAIR, Senegal.

INTRODUCTION

Breech delivery has always been and remains a subject of considerable interest, hotly debated in obstetrics, which fascinates and divides obstetricians, particularly among primiparous women.

This is due to significant perinatal morbidity and mortality but also to associated maternal morbidity. But also in its frequency, Among the irregular presentations, the breech presentation is the most common. In fact, the overall incidence of breech births worldwide varies between 3 and 4.2% [1]. In Africa, it varies from 1.52 to 5.4% [2].

This is a potentially obstructed eutocic delivery. Indeed, in breech presentation, the different segments of the body are delivered in the opposite direction to their volumes, and the latter can suddenly increase when the attitude of the fetus ceases to be favorable, thus creating dystocia [3].

DEMELIN said that it was a eutocic birth on the verge of dystocia. Today, the terms should be reversed, because from now on only those deliveries that ensure the birth of live, viable children, free from any trauma likely to cause any disability [4] can be considered as eutogic deliveries [4].

Breech delivery requires mastery of obstetric technique and an almost systematic use of maneuvers, which clearly expresses its potentially obstructive nature.

The two major questions revolve around the place of external maneuver version (EMV) in the prevention of this birth, and the method of birth by vaginal delivery or cesarean section. So many questions that are not easy to answer.

To undertake this birth so dreaded by obstetricians, it is essential to assess the maternal-fetal risks. This assessment should allow the birth attendant to schedule the cesarean section or attempt the vaginal route [5].

HANNAH's "Term Breech Trial" (TBT) published in October 2000 is the study that had the greatest impact on clinical practices regarding the breech route of delivery. This study led to a significant and steady increase in the cesarean section rate for breech presentations worldwide, with rates reaching 75–80% [6, 7].

By 2003–2004, a number of countries had begun to question the results of the TBT trial. The National College of French Gynecologists and Obstetricians (CNGOF) were the first, within the framework of a symposium in 2001, to question this systematic approach with regard to breech delivery. In 2006, GOFFINET et Coll. published the PREMODA study (PResentation et MODe d'Acouchement) which is a prospective observational study over 1 (one) year with intention to treat in France and Belgium, 8105 full-term breech in 174 centers, the delivery rate per Effective vaginal delivery (VB) was 22.5%, which found no difference in perinatal mor-

tality or serious neonatal morbidity between labor and planned cesarean section [8].

In Africa, on the other hand, there have been many studies and almost no recommendations regarding breech delivery [5].

Classically, primiparity is considered a risk factor in breech presentation [1].

RESULTS

Numbers and Frequency

From January 1, 2005 to December 31, 2023, 627 first-time breech women gave birth at the Nabil Choucair Health Center maternity ward, with a number of deliveries of 98,946. The frequency was 0.6%.

Age

In our series, the average age of patients was 23 years with extremes ranging from 15 to 45 years. The median age was 22 years, as reported in Figure 1, more than half of the patients (62.75%) belong to the age group of 20-29 years.

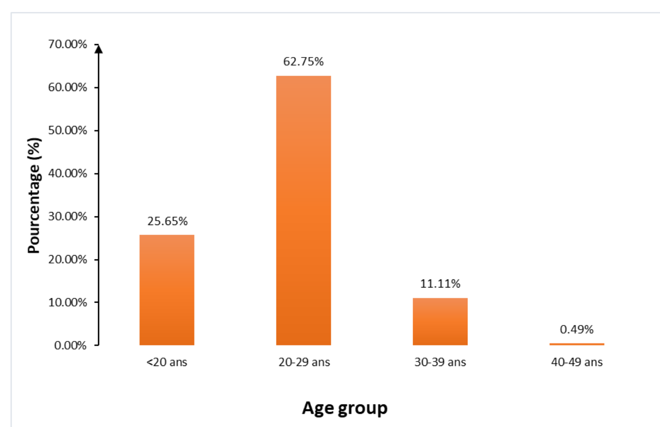

Figure 1: Distribution of parturients according to age

Seat mode

In our study, the breech mode was indicated in 409 patients, 38.43% were incomplete breech and 26.79% were complete breech as reported in Table I.

Table I: Distribution of patients according to seating mode

Seat mode	Fréquence	Pourcentage
Decomplete	241	38,43
Complet	168	26,79
Non précisé	218	34,76
Total	627	100

Clinical pelvimetry

Concerning the pelvises, 87.66% of them were judged clinically normal; 8.81% were narrowed, of which 54.55% were transversely narrowed and 45.45% generally narrowed. Figure 2 summarizes the distribution of patients according to pelvis type.

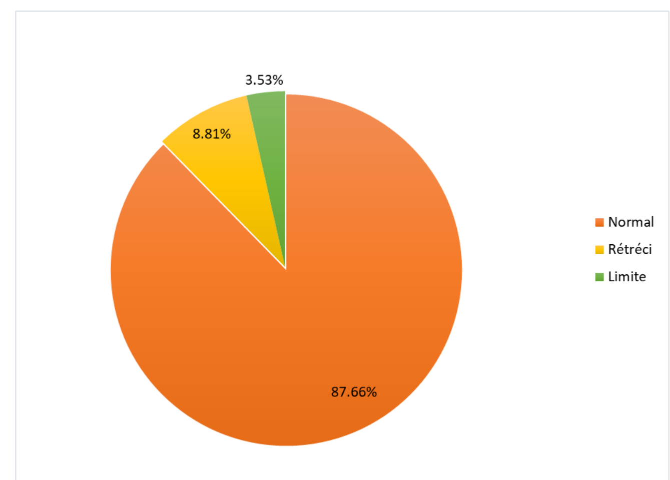

Figure 2: Distribution of patients according to type of pelvis

Childbirth data

Delivery route

In our study, spontaneous vaginal deliveries were 327 (52.40%); 30 (4.81%) had given birth vaginally with maneuvers and 267 (42.79%) patients had undergone a cesarean section. Figure 3 summarizes the distribution of patients according to route of delivery.

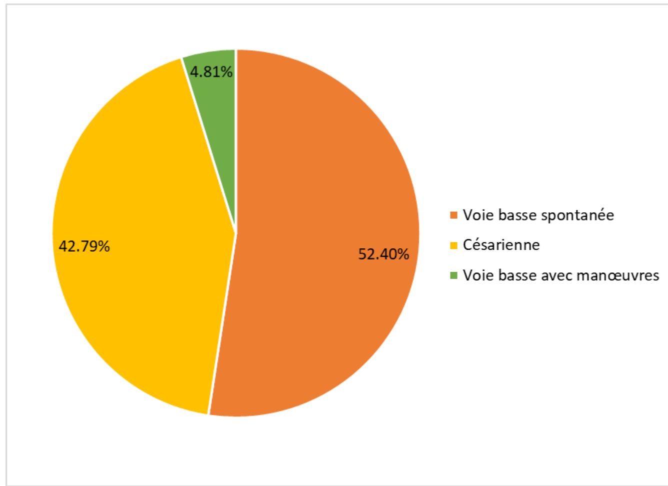

Figure 3: Distribution of patients according to route of delivery

As vaginal delivery with maneuvers was carried out in 30 patients (4.81%), Table II below reports the distribution according to the types of maneuvers.

Table II: Distribution of patients according to types of maneuver

Maneuver type	Fréquence	Pourcentage
Grande Extraction Siège	10	33,33
Bracht-Lovset	5	16,67
Petite Extraction aidée	5	16,67
Mauriceau-Lovset	4	13,33
Mauriceau	3	10,00
Bracht	2	6,67
Lovset	1	3,33
Total	30	100

n our series, 57.37% of patients had given birth vaginally and:

- An episiotomy was performed in 151 parturients (42.30%).
- A perineal tear was noted in 29 parturients (8.15%).

Indications for cesarean section

The indications for cesarean section were mixed in 55.19%, fetal in 41.85% and maternal in 2.96%. Figure 4 summarizes the distribution of patients according to indications for cesarean section.

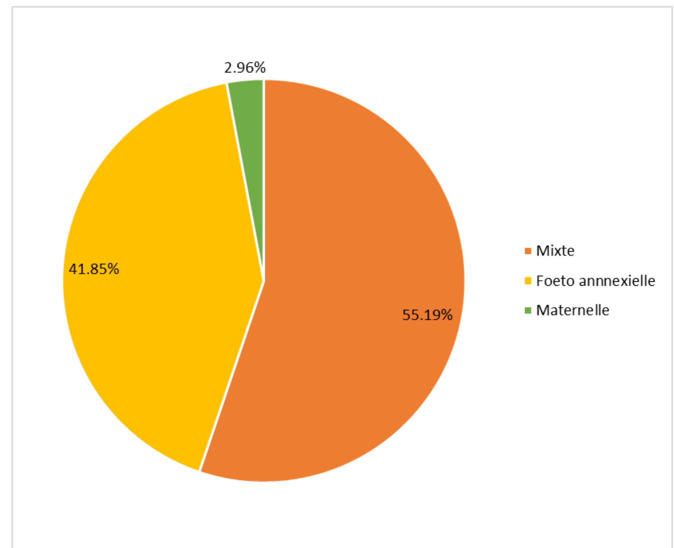

Figure 4: Distribution of patients according to indications for cesarean section

Premature rupture of membrane associated with breech presentation (41.20%), was the main indication for cesarean section. As reported in Table III.

Table III: Distribution of patients according to indications for cesarean section

Ceasarian section indication	Fréquence	Pourcentage
Prémature rupture of membrane	110	41,20
Shruk basin	103	38,57
Fetal distress	33	12,36
Procidence of the cord	25	9,36
Severe preeclamsia	16	5,99
Macrosomia	12	4,49
Procidence of the hand	11	4,12
High blood pressure	9	3,37
Oligoamnios	6	2,25

Intrautérine growth retardation	5	1,87
Myomatous uterus	5	1,87
Dynamic dystocia	25	9,36
Retroplacental hematoma	3	1,12
Coagulopathie	2	0,75
Term overun	3	0,75
Excessive fundal height	2	0,75
Gestationnal diabetes	1	0,37
Amniotic Infection	1	0,37
Hemorrhagic placenta praeva	1	0,37

Neonatal data

APGAR score

The Apgar score at the fifth minute (M5) was used to judge the condition of newborns at birth. The APGAR M5 score was absent in 13 newborns (2.13%), it was 1 to 7 in 86 newborns (14.12%) and >7 in 510 newborns (83.74%). . Figure 5 summarizes the distribution according to the Apgar score at 5 minutes.

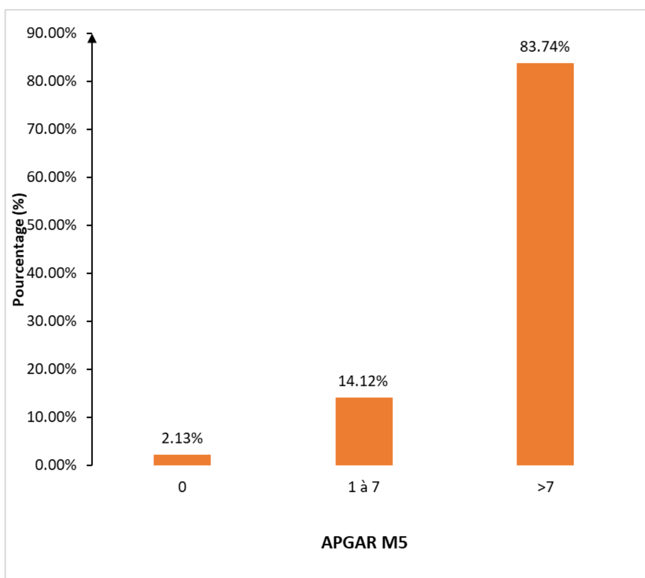

Figure 5: Distribution of newborns according to APGAR score

Birth weight

In our series the average weight was 2782.4 grams and extremes between 1100 and 4200 grams.

In our study, eleven cases of fetal macrosomia were recorded (1.78%) and low birth weight in 13 newborns (2.11%).

Table IV summarizes the distribution of newborns according to birth weight.

Table IV: Distribution of newborns according to birth weight

Birth weight	**Fréquence**	**Pourcentage**
< 2000 grammes	13	2,11
[2000-4000 grammes [	593	96,11
≥4000 grammes	11	1,78
Total	617	100,00

Neonatal prognosis

In our series, 94.42% had a good prognosis, 3.03% a poor prognosis and 2.55% neonatal death were recorded. Figure 6 summarizes the distribution of newborns according to fetal prognosis.

Prematurity was the main factor of poor prognosis (0.8%).

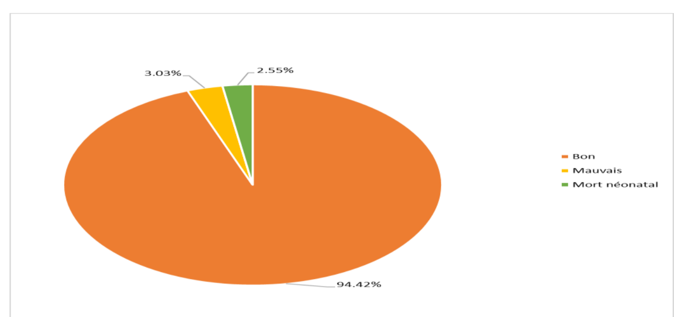

Figure 6: Distribution according to fetal prognosis

Link between age group and APGAR score

In our study, we found that whatever the age group, the APGAR score greater than 7 was more frequent, greater than 75%.

Table V summarizes the APGAR score according to age groups.

Table V: APGAR score according to age groups

Tranche d'âge	Score APGAR			
	<7 n(%)	**>7 n (%)**	**Total**	**P va-lue**
Less than 20 ans	38 (24.5)	117 (75.5)	155 (100)	0,004*
20-29 ans	52 (13.9)	323 (86.1)	375 (100)	
30 ans +	7 (10.8)	58 (89.2)	65 (100)	
En-semble	97 (16.3)	498 (83.7)	0	0)

Link between birth weight and APGAR score

We found that whatever the birth weight less than 2000 g, the APGAR score less than 7 was more frequent (66.7%).

Table VI summarizes the APGAR score according to birth weight.

Table VI: APGAR score according to birth weight

Birth weight	**APGAR**			
	<7 n(%)	**>7 n (%)**	**Total**	**P va-lue**
<2000 gr	8 (66.7)	4 (33.3)	12 (100)	<0,001*
2000 – 4000 gr	86 (14.8)	494 (85.2)	580 (100)	
>4000 gr	2 (18.2)	9 (81.8)	11 (100)	
En-semble	96 (15.9)	507 (84.1)	0	0)

Link between basin type and APGAR score

We found that whatever the type of basin, the AP-GAR score greater than 7 was more frequent (83.8%).

Table VII summarizes the APGAR score according to the type of basin.

Table VII: APGAR score according to basin type

Ma-ternel basin	**APGAR score**			
	<7 n(%)	**>7 n(%)**	**Total**	**P va-lue**
Nor-mal	93 (17.5)	437 (82.5)	530 (100)	0,044*
Shruk	3 (5.5)	52 (94.5)	55 (100)	
Limit	2 (9.5)	19 (90.5)	21 (100)	
En-semble	98 (16.2)	508 (83.8)	00	)

Link between route of delivery and APGAR score

We found that whatever the route of delivery, the APGAR score greater than 7 was more frequent. The highest rates of low APGAR score (< 7) were observed in patients who gave birth vaginally (22%) but the difference was not significant.

Table VIII summarizes the APGAR score according to the route of delivery.

Table VIII: APGAR score according to route of delivery

Child birth	Score APGAR			
	<7 n(%)	>7 n (%)	Total	P value
Vaginal delivery	76 (22)	269 (78)	345 (100)	<0,001*
Ceasariane	23 (8.8)	239 (91.2)	262 (100)	
Ensemble	99 (16.3)	508 (83.7)	607 (100)	

DISCUSSION

Breech delivery is associated with increased perinatal mortality and morbidity [9].

In our study, fetal hypotrophy affected 2.07% of newborns, prematurity affected 0.8% of newborns and Newborns with low birth weight represented 2.07% of cases. Among them, 66.7% had an Apgar score at the fifth minute lower than 7.

It should also be added that in our study, the conditions of acceptability of vaginal delivery were not evaluated, not through ignorance on the part of practitioners but through lack of resources on the part of patients. Which explains some poor apgar scores

In primiparous women, on the contrary, the fetal prognosis always has a reservation" [1]. For SUZANNE, primiparity is accompanied by an increased perinatal mortality rate. As for multiparity, even if it was classic to admit that the prognosis is all the better the higher the parity, many authors are of a contrary opinion, especially with regard to the great multiparity [10, 11].

In the literature, most authors highlight high morbidity in newborns weighing less than 2500 g born in breech presentation [12].

For DUBOIS, fetal morbidity is clearly high, with Apgar scores at 1 minute and 5 minutes less than 4 if the delivery is vaginal for the low birth weight fetus [10]. In our study, we found that poor fetal prognosis was associated with low birth weight and vaginal delivery. However, still in our study, fetal prognosis was not linked to breech mode.

Maternal-fetal mortality and morbidity are the two most important parameters for evaluating the good progress of pregnancy and especially childbirth, and given their importance, maternal-fetal mortality constitutes one of the indicators consulted to evaluate the level of development of nations [13].

Although maternal complications are greater in the event of delivery in breech presentation, the fetal prognosis remains the same compared to other presentations [15].

CONCLUSION: Vaginal delivery of breech presentation in primiparous women is still possible in a level II maternity ward with an operating theater. Indications for cesarean section should be reserved for breech presentations in primiparous women associated with other risk factors.

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