

Maternal-Fetal Prognosis of Delivery in the Presentation of the Seat at the Kayes Hospital (Mali)

Mahamadou Diassana¹, Ballan Macalou¹, Sitapha Dembele¹, A. Sidibe², A. Hamido², D. Konate², Soumana Oumar Traore³, Mamadou Sima⁴, Cheickna Sylla⁵, Amadou Bocoum⁵, Seydou Fane⁵, Soumaila Traore⁶

¹Obstetrics and Gynecology Department at Fousseyni DAOU Hospital, Kayes, Mali

²Kayes Reference Health Centre, Kayes, Mali

³Reference Health Centre in Bamako Commune V, Bamako, Mali

⁴Department of Gynecology and Obstetrics at the G-Spot University Hospital, Bamako, Mali

⁵Department of Obstetrics and Gynecology at GABRIEL TOURE University Hospital, Bamako, Mali

⁶Department of Obstetrics and Gynecology at SIKASSO Regional Hospital, Sikasso, Mali

Email: mahamadoudiassana@gmail.com

How to cite this paper: Diassana, M., Macalou, B., Dembele, S., Sidibe, A., Hamido, A., Konate, D., Traore, S.O., Sima, M., Sylla, C., Bocoum, A., Fane, S. and Traore, S. (2021) Maternal-Fetal Prognosis of Delivery in the Presentation of the Seat at the Kayes Hospital (Mali). *Open Journal of Obstetrics and Gynecology*, 11, 578-590.

<https://doi.org/10.4236/ojog.2021.115054>

Received: April 5, 2021

Accepted: May 17, 2021

Published: May 20, 2021

Copyright © 2021 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Objective: The purpose of this study was to assess the risk factors associated with seat presentation and to determine the maternal-fetal prognosis of delivery in the presentation of the seat. **Materials and methods:** This was a descriptive, cross-sectional and analytical case-control study with prospective data collection, from January 1, 2018 to December 31, 2019, a 12-month period at Kayes Hospital, Mali. **Results:** During our study period we recorded 3820 deliveries, including 120 breeches; a frequency of 3.14% of all deliveries. The 20 - 35 age group was the most represented in cases 61.7%. Of the cases 66.7% (n=80) were out of school, we note 75.8% (n=182) of out-of-school controls. Primiparae were the majority among cases 39.2% (n=47), as were 39.1% of the controls (n=118). The cases had a history of caesarean section at 15% (n=18); 13, 3% (n=32). The most common mode of presentation was the 70% decomplete seat. It was mainly the anterior left sacro iliac variety (85.8%). The low pathway was preferred during these deliveries to 70% against 30% of caesarean section of which 28.3% of cases were carried out in an emergency. Several factors such as delivery pathway, mode of presentation, length of expulsion and obstetric manoeuvres used influenced fetal prognosis. Fetal complications were dominated by acute fetal suffering (15.8%), followed by dislocation of the shoulder (0.8%). The most common morbid maternal complications were soft part tears (15 cases or 12.5%) and parietal suppuration (1 case or 0.8%). We did not record any maternal deaths.

Conclusion: Our results confirm that childbirth is a risky delivery, and must require careful selection of eligible cases and rigorous management of labour with trained teams. In these circumstances, it seems totally abusive to advocate as a single mode of delivery caesarean section in all presentations of the chair in the primigestes.

Keywords

Siege Delivery, Obstetric Prognosis

1. Introduction

Seat presentation is a longitudinal presentation where the pelvic end of the fetus first appears in the upper strait area. This is the most common irregular presentation. The overall incidence of breech-seat deliveries worldwide ranges from 3% to 4.2% [1]. In Africa, it ranges from 1.52% to 5.4%. In Mali, Koné M. [2] had found in two years a frequency of 2.74% of all deliveries at the Gabriel Touré University Hospital. It is a high-risk birth of mortality and fetal-maternal morbidity because of its potentially “dystocic” nature. Therefore, a situation worries the obstetrical team around the world [1]. The mode of delivery in the presentation of the term seat remains at the origin of much passionate debate around the world. Vaginal delivery in the event of a breech presentation would be associated with an increased risk of perinatal mortality. As early as 1951 WRIGHT advocated routine caesarean section in order to reduce the perinatal morbidity and mortality rate 4 - 6 times higher than the presentation of the summit [3]. This attitude was very controversial at the time given the risk associated with the excess mortality and morbidity of caesarean section. The conditions of delivery are much better at present, yet the abundance of literature on perinatal prognosis still revives debates between proponents of routine caesarean section and supporters of the lower track in the event of breech presentation [4] [5]. This discrepancy prevents the definition of a standard therapeutic attitude towards childbirth in the presentation of the seat. In developing countries, in addition to the prognosis problem associated with childbirth, the presentation of the breech also poses the problem of diagnosis, monitoring of pregnancy given the lack of health infrastructure and qualified medical personnel [2]. The lack of previous studies on this type of birth in our department motivated the initiation of this work.

2. Objective

The goal was to assess the risk factors associated with seat presentation and to determine the maternal-fetal prognosis of delivery in presentation of the seat.

3. Materials and Methods

This was a descriptive, cross-sectional and analytical case-control study with a prospective collection of data, ranging from January 1, 2018 to December 31,

2019, a 12-month period at Kayes Hospital, Mali. **Inclusion criteria:** were included in our study: all cases and controls recorded during the study period. **Cases,** all pregnant and/or parturients admitted to the service for obstetric care on a pregnancy greater than or equal to 28 weeks of amenorrhea (SA) with fetuses presenting the seat. **Witnesses,** all pregnant and/or parturients admitted to the service for obstetrical care on a pregnancy greater than or equal to 28 SA with fetuses in presentation of the summit. For each case of breech delivery, the following two summit presentation deliveries were taken as witnesses. **The exclusion criteria:** were excluded from this work: any other mode of presentation: forehead, face, transverse; fetal malformations incompatible with life; stillborn fetuses macerated. The data collection was done by an individual survey sheet for each patient. The data sources were made up of the CPN Notebooks, patient records, patient examination, the operating report registry, the delivery register. The data entry was done on Microsoft Word 10 and analyzed on Microsoft Excel 10, IBM SPSS 20 software. The anonymity and confidentiality of those involved in the study were respected. **The limitations** of this work were among other things: the absence of third trimester ultrasound and radiopelvimetry in most of our parturients; the lack of specific means of monitoring labour (cardiotocograph, PH metrics).

4. Results

4.1. Epidemiological Aspects

During our study period, we recorded 120 breech deliveries out of a total of 3820 deliveries, a frequency of 3.14%. The 20 - 35 age group was the most represented at 61.7% with an average **age** of 25 years and extremes ranging from 14 to 45 years for cases versus an average age of 26 years and extremes ranging from 15 to 44 years for controls. Of the cases 66.7% of the parturients were out of school compared to 75.8% of out-of-school controls. Housewives accounted for 84.2% of the number of cases compared to 87.9% of witnesses. On the other hand, 2.5% were civil servants compared to 0% of witnesses. These epidemiological aspects are summarized in **Table 1** and **Figure 1**.

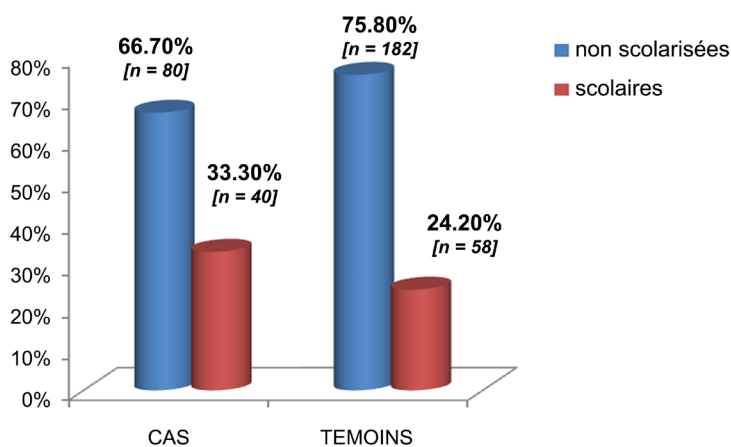
4.2. Clinical Aspects

Reference/Evacuation: parmi cases 79.20% of parturients were admitted directly against 20.80% reference/Evacuation. Primipares accounted for 39.2% of the workforce among cases compared to 39.1% for witnesses. (No.118). **The history of caesarean section** was noted in 15% of the parturients among the cases compared to 13.3% among the controls. **Prenatal consultations** were of good quality in 4.1% versus 5% among controls. They were of poor quality in 25% against 34.2% among witnesses. **The associated risk actors** were *uterine myoma* in 1.7%; *uterine malformation* in 4.2%; *hydramnios* 2.5%; *scarred uterus* in 11.7%; *géméllity* 32.4%. **Birth labour abnormalities** were dominated by dynamic dystocies in 15% in cases versus 6.2% among controls; mechanical dystocies

Table 1. Epidemiological aspects.

<i>Age range</i>	<i>case</i>		<i>Witnesses</i>		<i>Statistical test</i>
	Eff	%	Eff	%	
19 years old	25	20.8	71	29.58	P-0.07
20 - 35 years old	74	61.7	141	58.75	P-0.59
>35 years old	21	17.5	28	11.67	P-0.12

<i>profession</i>	<i>case</i>		<i>Witnesses</i>		<i>Statistical test</i>
	Eff	%	Eff	%	
official	3	2.5	0	0	-
housewife	101	84.2	211	87.9	P-0.32
Student	9	7.5	11	4.6	P-0.25
Student	0	0	1	0.4	-
merchant	7	5.8	17	7.1	P-0.65

**Figure 1.** Distribution of women by level of education. Of the cases, 66.70 per cent (N-80) were out of school and 33.30 per cent (N-40) were in school; Of the controls, 75.80 per cent (N-182) were out of school and 24.20 per cent (N-58) were in school.

were noted in 11.5% versus 5.4% among controls; hemorrhage in 3.3% versus 1.7% of controls; cord proci-dence in 1.7%. **The delivery pathway** among the cases was the caesarean section at 30% and the low pathway at 70%; that of the controls was the caesarean section at 7.1% and the lower pathway at 92.9%. **The duration of the labour** was 12 hours in 81.7% in the series of cases and 97.5% in the controls. **The length of deportation** was 45 minutes in 90% in the series of cases and 93.75% in the controls. **Episiotomy** was performed in 70% of cases and 6.7% of controls. In cases 36% of deliveries took place without any obstetric maneuvering. **Obstetrical work:** BRACHT was used in 60% of cases, MAURICEAU in 9.2% of cases and LOVSET in 0.8% of cases. **The indications of caesarean section:** caesarean sections were performed before labour and during labour. Before labour, the presentation of the seat in a primipara was noted in 1cas and 7 cas during labour. The fetal-pelvic disproportion was noted in 2 cas. 14 cas of

cicatricial uterus were noted. Stationary dilation was noted in 4 cas; only one case of fetal suffering was reported; cord procidence 4 cas; pelvis abnormalities 3 cas condylome 1 cas. Macrosomy involved 6 infants, or 5% of cases. These clinical aspects presented in **Figure 2** and **Tables 2-4**.

Table 2. Clinical aspects (Risk Factors for Head Office Presentation) 2018-2019 at Kayes Hospital, Mali.

<i>parity</i>	<i>case</i>		<i>Witnesses</i>		<i>Statistical test</i>
	<i>Eff</i>	<i>%</i>	<i>Eff</i>	<i>%</i>	
Primipare	47	39.2	118	49.1	P-0.07
Paucipare	37	30.8	63	26.3	P-0.36
Multipare	17	14.2	35	14.6	P-0.91
Large multipare	19	15.8	24	10	P-0.10
Surgical anecerties					
caesarean section	18	15	32	13.3	P-0.66
Myomectomy	2	1.7	1	0.4	P-0.53
Uterine plastia	0	0	1	0.4	-
none	100	83.3	206	85.9	P-0.53
Quality Prenatal Consultation (NPC)					
good	5	4.1	12	5	P-0.72
Average	74	61.7	118	49.2	P-0.02
bad	30	25	82	34.2	P-0.07
Not done	11	9.2	28	11.6	P-0.47
Risk factors associated with					
Uterine Myoma					-
Uterine malformation	5	4.2	1	0.4	P-0.02
Hydramnios	3	2.5	0	0	-
Scarred uterus	14	11.7	3	1.3	P-0.73
Gemini	39	32.4	0	0	-
None	57	47.5	236	98.3	P-It;0.05

Table 3. Clinical aspects.

<i>Work anomaly</i>	<i>case</i>		<i>Witnesses</i>		<i>Statistical test</i>
	<i>Eff</i>	<i>%</i>	<i>Eff</i>	<i>%</i>	
Dynamic dystocia	18	15	15	6.2	P-0.006
Mechanical dystocia	14	11.7	13	5.4	P-0.03
haemorrhage	4	3.3	4	1.7	P-0.52

Continued

Cord procdence	2	1.7	0	0	-
No	82	68.3	208	86.7	-
Obstetric maneuvers					
Bracht	72		60		
Mauritius	11		9.2		
Lovset	1		0.8		
No	36		30		
Birth weight	Case		Witnesses		Statistical test
	Eff	%	Eff	%	
2500 g	19	15.8	3	1.3	P and It; 0.05
2500g - 3500 g	86	71.7	224	93.3	P and It; 0.05
3500 g - 4000 g	9	7.5	11	4.6	P-0.25
4000 g	6	5	2	0.8	P-0.03

Table 4. Clinical aspects.

Delivery path	case		Witnesses		Statistic testing
	Effectif	%	Effectif	%	
caesarean section	36	30	17	7.1	
low lane	84	70	223	92.9	
Working time					
12 H	98	81.7	234	97.5	P and It; 0.05
12 H	22	18.3	6	2.5	P and It; 0.05
Length of deportation					
45 minutes	108	90	225	93.75	
45 minutes	12	10	15	6.25	
Episiotomy					
Yes	84	70	16	6.7	
No	36	30	224	93.3	
Indications of caesarean section	Before the birthing labour		During the labour of delivery		
Introducing the seat at primipare	1		7		
Fetal-pelvic disproportion	0		2		
Scarred uterus	2		12		
Stationary dilation	0		4		
Acute fetal suffering	0		1		
Cord procdence	0		4		
pelvis abnormalities	1		2		

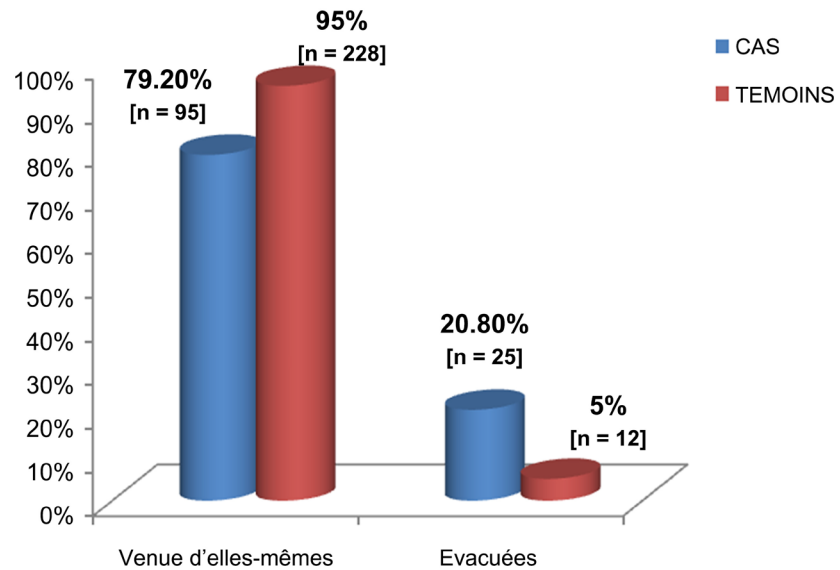


Figure 2. Distribution of women by admission, $\chi^2=21.7$; dll 1; p-lt; 0.05. Of the cases 79.20% (N-95) had come on their own and 20.80% (N-25) were evacuated; Of the controls 95% (N-228) had come on their own and 5% (N-12) were evacuated.

4.3. Maternal-Fetal Prognosis

Maternal complications were dominated by vulvo-vaginal tears 12.5%, parietal Suppuration 0.8%; we recorded no maternal complications in controls, nor any maternal deaths in the study. **Neonatal complications:** dislocating the shoulder 1 cas or **0.8%**. 95.8% of the newborns in our series were born alive however 4.2% died. The maternal-fetal prognosis is summarized in **Table 5**.

Analytical results (Table 6).

5. Discussion

5.1. Epidemiological Aspects

In the literature, authors report variable frequency rates. During the study period, we collected 120 breast deliveries out of a total of 3820 deliveries, representing a frequency of 3.14%. **Table 7** presents data on the frequency of birth by the seat by the authors.

The frequency of siege deliveries varies from country to country. Our high rate of seat presentation could be explained on the one hand: the fact that we have included multiple pregnancies and preterm births that are frequently associated with the presentation of the seat; and on the other hand by the fact that our service is the last resort for the management of obstetric emergencies in the referral/evacuation system in the Kayes area.

Age: We did not find a statistically significant difference between the average age of our cases 25 years and that of their witnesses P-0.05. This result is similar to those of Dicko B. [9], Koné M. [2] in Mali, Farsi I F. [10] in Senegal, Macombou P. [6] in Congo, Erkaya S. [11] in Turkey, and Rosenau L. [12] in France, which reported an average age of 24, 26 years, 27 years, 29 years, 25 years and 27

Table 5. The maternal-fetal prognosis.

<i>Maternal complications</i>	<i>Case</i>		<i>Witnesses</i>		
	Eff	%	Eff	%	
Vulvo-vaginal tear	15	12.5	0	0	
Parietal suppuration	1	0.8	0	0	
Death	0	0	0	0	
No	104	86.6	240	100	
<i>Fetal and neonatal complications</i>	<i>Case</i>		<i>Witnesses</i>		<i>Statistical test</i>
	Eff	%	Eff	%	
SFA	19	15.8	1	0.4	P and It; 0.05
fracture	0	0	0	0	-
Brachial plexus paralysis	0	0	0	0	-
Shoulder luxation	1	0.8	0	0	-
No	100	83.4	239	99.6	P and It; 0.05
<i>Newborn status</i>	<i>Case</i>		<i>Witnesses</i>		<i>Statistical test</i>
	Eff	%	Eff	%	
alive	115	95.8	240	100	P-0.06
deceased	5	4.2	0	0	-

Table 6. Analytical results.

<i>parity</i>	<i>Delivery lane</i>								<i>Statistical test</i>
	<i>caesarean section</i>				<i>Low track</i>				
	<i>case</i>		<i>Witnesses</i>		<i>case</i>		<i>Witnesses</i>		
	Eff	%	Eff	%	Eff	%	Eff	%	
Primipare	25	69.4	9	53	22	26.2	109	48.9	P-It; 0.05
Paucipare	8	22.2	4	23.5	29	34.5	59	26.5	P-0.4
Multipare	1	2.8	1	5.9	16	19.1	34	15.2	P-0.08
Large multipare	2	5.6	3	17.6	17	20.2	21	9.4	P-0.03
<i>Apgar score in the 1st minute</i>	<i>Pregnancy monitoring</i>								
	<i>Yes</i>				<i>No</i>				
	<i>case</i>		<i>Witnesses</i>		<i>case</i>		<i>Witnesses</i>		
	Eff	%	Eff	%	Eff	%	Eff	%	
0	0	0	0	0	0	0	0	0	
1 - 3	4	3.7	1	0.5	0	0	0	0	
4 - 6	18	16.5	3	1.4	4	36.4	0	0	
7	87	79.8	208	98.1	7	63.6	28	100	
<i>Apgar score in the 1st minute</i>	<i>Obstetric maneuvers</i>								
	<i>Bracht</i>		<i>Mauritius</i>		<i>Lovset</i>				
	Eff	%	Eff	%	Eff	%	Eff	%	
	0	0	0	0	0	0	0	0	
1 - 3	1	1.4	2	18.2	0	0	0		
4 - 6	8	11.1	8	72.7	1	100	0		
7	63	87.5	1	9.1	0	0	0		

Continued

Apgar score in the ^{1st} minute	How to present				Statistical test
	Full seat		Unseating seat		
	Eff	%	Eff	%	
0	0	0	0	0	-
1 - 3	2	5.6	2	2.4	P-0.73
4 - 6	9	25	13	15.5	P-0.21
7	25	69.4	69	82.1	P-0.96

Table 7. The frequency of home birth 2018-2019 at Kayes Hospital, Mali.

Authors	staff	%
Macombou P. Congo 2002 [6]	345	4.7%
Touré M. Mali 2006 [7]	105	2.1%
Hannah M E. Hannha W J. Canada 2000 [8]	-	3%
Our Mali 2018 study	120	3.14%

years respectively. We did not find a statistically significant correlation between age and seat presentation in this study P-0.05; on the other hand Dicko B. [9] in common V/Bamako in 2001 found that relative young age is a factor of poor fetal prognosis with a p-0.031. The female **population of Mali** is predominantly made up of housewives. Thus we noted 84.2% of housewives among cases and 87.9% among controls without statistically significant difference P-0.55. Most studies in Mali report markedly high rates of housewives So: Dicko B. [9] in 2001, Koné M. [2] in 2004, and Touré M. [7] in 2008 in Mali (Bamako) reported 91.3%, 71.43%, and 90.5% in their respective studies. These are most often out-of-school pregnant women, so they are very reluctant to understand the risks associated with this type of situation during pregnancy. **The problem:** in this study, the frequency of seat presentation decreases with parity. Thus we noted 39.2% of primiparous, 30.8% of paucipares among cases against 49.1% and 26.3% among the witnesses P-0.05. Other authors such as Koné M. [2] and Touré M. [7] Mali (Bamako) reported 33.6% and 38.1% primiparous with 37.83% and 21.9% paucipares. Our high rate of priparousness could be explained by the precocity of sexual intercourse (early marriage *i.e.* before the age of 18). Multipares and large multipares accounted for only 14.2% and 15.8% respectively in cases; statistically significant difference with their witnesses. Indeed, the accommodation disorder in the multipare due to the loosening of the uterine walls explains the occurrence of the presentations of the seat in the latter [2]. **Surgical antecedents:** a scary uterus always presents a risk of dehiscence during pregnancy or childbirth. In the case of the presentation of the seat, the history of uterine surgery is important to take into account as it may indicate a caesarean section from the outset. 15% of our cases had a history of caesarean section compared to 13.3% of P-0.66 controls. Rates close to ours have been reported by

Koné M. [2] and Dicko B. [9] 10.92% and 11% respectively. The history of caesarean section was found associated with breech delivery in 4.8% and 7.4% of cases respectively in the Touré M. [7] studies in Mali and Farsi I F. [10] in Senegal. We found in this study 1.7% of cases of myomectomy.

Pregnancy follow-up: 9.2% of cases did not have any prenatal follow-up. This rate is close to that of the controls without a statistically significant difference ($p=0.47$). This rate is close to that of Manefoue HM. [13] 9.4% at the G-spot CHU in 2008. Other authors like Brahim O. [14] in Tunisia; and Farsi I L. [10] in Senegal reported 35% and 34.1%, respectively. One of the goals of prenatal consultation in the last month of pregnancy is to determine the prognosis of delivery. Most of the gestantes collected in this study did not benefit from this assessment either because of the poor quality of NPCs or because of the lack of prenatal follow-up. These are pregnant women whose prognosis of delivery has been assessed in the labour room sometimes in emergency situations. 20.8% of our cases were evacuated from other socio-health structures compared to 5% of the witnesses. These are the parturients who were first received in other structures and then evacuated because of abnormalities related to the evolution of the labour. **Clinical examen:** taille of the **parturient**, and obstetric assessment of size is important as soon as the gestant is admitted to the work room. 3.3% of our cases were less than 150 cm in size. This rate is close to that of witnesses (5%) without a statistically significant difference ($P=0.46$). The size of 150cm was associated with the presentation of the seat in 2.52%, 5.2% 7.6% respectively in [2] [7]. The average size of our cases was 163 cm. Other authors like Farsi IF. [10] in Senegal and Rosenau L. [12] in France reported average sizes 163 cm and 162 cm respectively. Fetal **cardiac rhythm:** The assessment of the routine fetal heart rate at admission was done exclusively to Pinard's stethoscope. In this study, we found a frequency of bradycardia in cases: 5%. Koné M. [2] reported in 2005 to Gabriel Touré 17.6% bradycardia. Our low rate could be explained by the absence of fairly sensitive equipment (cardiotocograph) in our service. Some factors may have contributed to altering the heart rate of the fetus in our study. These are: delays in the decision-making of the evacuation, the mode of evacuation, dynamic dystocies (15%), mechanical dystocies (11%), cord proclivity (1.7%). **Fetal respiration:** 30% of fetuses in admission cases had a full-seat presentation versus 70% of mode counted with a statistically significant difference of $p=0.0000$. Authors [2] [7] reported respectively 59.4%, 54.6%, and 51.4% full seat against 40.6%, 45.4% and 48.6% of decompeted fashion without having a statistically significant difference of $p=0.05$. Primiparous with full seat presentation represented 44.4% versus 36.9% of the seat completed without a statistically significant difference ($p=0.43$). The anterior left sacro iliac variety was most common with 85.8%. In our cases, we found a statistically lower presentation engagement rate than their witnesses $P<0.05$. This difference could be explained by the potentially dystopic nature of the labour in the presentation of the seat.

Births: Several factors determined the pathway of delivery in this study. We found in this study a higher rate of caesarean section than the presentation of the summit $P < 0.05$; and cases were 6 times more likely to give birth by caesarean section than their witnesses (OR-5.6; IC: (1.37 - 3.82). Caesarean section was performed in 69.4% of the primigestes. These are caesarean sections performed in emergency 27% of cases. The main indication of caesarean section was the presentation of the seat in the primipare associated with other factors (acute fetal suffering, large fetus in presentation of the seat, elderly primipare and abnormality of the pelvis) (Table 8).

Overall, they are higher in developed countries ranging from 44.4% to 90%. [15] [16].

This variation could be explained by the diversity of the means of prenatal and per partum surveillance that allow us to properly evaluate all the prognostic factors of childbirth in order to determine the ideal route, but also by the principle adopted by some schools (systematic caesarean section in all primipares with presentation of the seat). The obstetric manoeuvres used were dominated by those of Bracht 60%, Mauriceau 9.2%, and Lovset 0.8%. Vermelin's method was not practiced in our series. Expulsion during vaginal deliveries is less than or equal to 45 minutes in most cases (90%), compared to 93.75% of controls without a statistically significant difference of $p=0.20$. However, 10% of the cases had a deportation period of 45 minutes. These expulsion dystocies could be explained on the one hand by maternal exhaustion and on the other hand by dynamic dystocies requiring an infusion of oxytocin.

5.2. The Pronostic

The maternal pronostic

In the literature several types of maternal complications have been described [7]. In this study, several types of maternal complications were found. These complications depend on the factors that are either related to the pregnancy itself (follow-up), or the mode of delivery, or both. Thus the most frequently encountered

Table 8. Frequency of Caesarean section in the literature.

<i>continent</i>	<i>Authors</i>	<i>country</i>	<i>Frequency</i>	<i>Year</i>
	Farsi I F. [10]	Senegal	32%	1997
	Dicko B. [9]	Mali	30%	2001
	Ilesanmi O A. [15]	Nigeria	15%	1996
	Our study	Mali	30%	2009
Europe	Denis A. [16]	France	47.9%	1990
	Saunders N J.	England	90%	1996
	Koo M R.	Netherlands	44.4%	1998
USA	Laros	USA	82%	1995
	Schiff E.	USA	61.4%	1996

morbid complications were tears of the soft parts (15 cases or 12.5%) and parietal suppuration (1 case or 0.8%). We did not record any maternal deaths. Parietal suppuration, recorded in our study, was observed only in an evacuated parturient; it was not related to the presentation of the seat itself but is a morbid complication sometimes encountered after a caesarean section. If the maternal prognosis is generally good in delivery in the case of the presentation of the seat, the increase in the frequency of caesarean section is a factor to be taken into account.

Fetal pronostic

Acute fetal suffering was the main fetal complication found by most of the perpetrators. In our study, the frequency of acute fetal suffering in cases was statistically higher than that of our controls $P < 0.05$; but without any statistical difference with those of the other authors [2] [7] $P=0.05$. We found a case of dislocation of the shoulder. Several factors contributed to the alteration of the fetal prognosis during brexit birth. The route of delivery in the event of the presentation of the seat can be an important morbid factor especially if all the conditions of acceptance of the seat are not respected. We found an alteration in Apgar's score regardless of the route of delivery in our study, in cases compared to controls with an advantage in newborns born by caesarean section. We found a score of Apgar 7 at the fifth minute with no statistical difference between newborns born by caesarean section and those born by the lower route $P=0.05$. The benefit of caesarean section over vaginal delivery in children identified in our study is noted in the Canadian, British and American \geq literature [2]. Hannah-Hannah [8] reported 0.4% fetal mortality in caesarean delivery compared to 5.7% after vaginal delivery. These rates are almost better at our 2.8% and 3.6%. The fetal prognosis in our study was less good in the case of a full seat than in the case of a full seat because of the frequency of full seat abnormalities. 14% of newborns in full seat presentation had an Apgar score of less than 7 in the 5th minute compared to 3.6% of newborns presenting the decomplete seat $p=0.09$. Our results are lower than those found by Dicko B. [9] and Koné M. [2] who rated 36.5% against 22% and 33.84% against 12% respectively. The fetal prognosis is inversely proportional to the length of expulsion. Indeed Apgar's scores in the 1st and 5th minutes were bad when the expulsion time is more than 45 minutes. This would be explained by the fact that in the case of prolonged expulsion, especially if improper obstetric maneuvers are associated, hypoxia develops which results in the alteration of Apgar's score.

Authors' Contributions

All the authors participated in the writing of the manuscript. They all approve the final version of the manuscript.

Ethics Authorisation

The ethics committee's authorization was found prior to the start of the study.

Conflicts of Interest

The authors state that they have no conflict of interest in this work.

References

- [1] Robert, M., Jean, L. and Jean, M. (1995) Accurate Obstetrics. Introducing the Seat. 6th Edition, Masson, Paris, 618.
- [2] Koné, M. (2005) Accouchement in Presentation by Fetal and Maternal Prognostic Seat in the Obstetric Gynecology Department of the Gabriel Touré Hospital. Med's Thesis, Bamako, No. 359.
- [3] Wright, R.C. (1959) Reduction of Perinatal Mortality and Morbidity in Breech Delivery through Routine Use of Caesarean Section. *Obstetrics & Gynecology*, **14**, 758-763.
- [4] Dufour, P. (2001) Introducing the Siege: The Last Day of the Low Track? *Gynécologie Obstétrique & Fertilité*, **29**, 337-338. [https://doi.org/10.1016/S1297-9589\(01\)00142-4](https://doi.org/10.1016/S1297-9589(01)00142-4)
- [5] Raudrant, D., Vaudoyer, F. and Golfier, F. (2001) Champion F. Low Track or Caesarean Section? The Presentation of the Term Seat: The Arguments for the Cesarean Section in Principle. *Gynécologie Obstétrique & Fertilité*, **29**, 729-732.
- [6] Macombou, P., Buambo, B., et al. (2006) Accouchement in Presentation of the Siege at the Brazzaville University Hospital. *Black African Medicine*, **53**, 287-292.
- [7] Touré, M. (2008) Accouchement in Presentation of the Seat at the csref C VI Fetal and Maternal Prognosis. Thesis Med., Bamako, Number 502.
- [8] Hannah, M.E., Hannah, W.J., Hewson, S.A., Hodnett, E.D. and Saigal, S. (2000) Vaginal Presentation Delivery: The End of an Era. *The Lancet*, **356**, 1357-1383. [https://doi.org/10.1016/S0140-6736\(00\)02840-3](https://doi.org/10.1016/S0140-6736(00)02840-3)
- [9] Dicko, B. (2001) Siege Delivery, Fetal Prognosis for 103 Cases. Thesis Med., Bamako, Number 67.
- [10] Farsi, I.F. (1997) Epidemiology of Childbirth in Presentation of the Seat and Early Neonatal Follow-Up in a Reference Maternity Hospital in Black Africa: Prospective Study in the Gynecology and Obstetrics Department of the Dakar University Hospital. Thesis Med., Dakar, It's 146.
- [11] Erkaya, S., Tuncer, A., Kutlar, I., Onat, N. and Ercakmak, S. (1997) Outcome of 1040 Consecutive Breech Deliveries Clinical Experience of Maternity Hospital in Turkey. *International Journal of Gynecology & Obstetrics*, **59**, 115-118. [https://doi.org/10.1016/S0020-7292\(97\)00197-5](https://doi.org/10.1016/S0020-7292(97)00197-5)
- [12] Rosenau, L., Grosieux, P., Denis, A., Lahlou, N. and Fournis, H. (1990) Facteurs pronostiques de l'accouchement en présentation du siège à propos de 357 grossesses monofoetales à terme. *French Journal of Obstetricgynecology*, **85**, 271-281.
- [13] Manefoue, H.M. (2008) Accouchement et présentation du siège à propos de 96 cas. Thèse de Med Bamako.
- [14] Brahim, O., Rachdi, R., Fekih, M.A., Mouelhi, C. and Messaoud, L. (1993) Fetal Prognosis of Brecit Birth: Statistical Study of 543 Observations. *French Journal of Obstetricgynecology*, **884**, 249-252.
- [15] St. Saunders, N.J. (1996) Controversies: The Mature Breech Should Be Delivered by Elective Cesarean Section. *Journal of Perinatal Medicine*, **24**, 545-551.
- [16] Koo, M.R., Dekker, G.A. and Van Geizn, H.P. (1998) Perinatal Outcome of Singleton Term Breech Deliveries. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, **78**, 19-24. [https://doi.org/10.1016/s0301-2115\(97\)00278-9](https://doi.org/10.1016/s0301-2115(97)00278-9)