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Echography contribution in the diagnostic and the taking charge of the praevia placenta at the university clinic of Kinshasa

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ABSTRACT:
In this present study it is shown the echography contribution in the diagnostic and the taking charge of praevia placenta which is the placenta near the internal orifice of the cervix. The study is descriptive and is performed from January 2009 to December 2013. Among 3949 files (cases histories) of women giving birth to babies, 71 files have been eligibles. In 77, 46% of cases, the diagnostic of praevia placenta have been confirmed at echography. The types IV and III have been diagnosed respectively in 34,55% and 27,27 %. The outstanding favoring factors are the abortions and curetages. The anaemia has been the principal maternal complication whereas the prematurity has been the principal perinatal morbidity. The maternal mortality has been zero. The perinatal mortality has been 17 %.

Keyword: *Echolgraphy*, *praevia placenta*, perinatal morbidity.

INTRODUCTION:
Obstetrical haemorrhage ante and post-partum is the mainly cause of the maternal and perinatal morbi-mortality. This haemorrhage is due to many causes namely the abnormal insertion of the placenta.
The praevia placenta [13] is an abnormal insertion of placenta on or near the internal orifice of cervix. It occurs at second or third trimester of pregnancy.
The praevia placenta diagnostic is done during the pregnancy by means of echography and clinically. After childbirth it is done by means of medical examination of placenta and its membranes. Knowing the place of praevia placenta in maternal and perinatal morbi-mortality its diagnostic must be precised earlier during prenatal checking in order to improve the maternal and perinatal prognostication.
Also the knowledge of its favoring factors contributes to reduce the maternal and perinatal morbi-mortality.
In USA, the haemorrhages due to the praevia placenta constitute the fourth cause of morbidity and maternal mortality [1].
The praevia placenta frequency is variable according to the medium, but it is in constante increasing in all populations [1].
Martin from USA in 2005 [1]and DOUYSSET from France in 2012 [2] have respectively reported an incidence of 1 for 300 births and 4 for 1000 births.
In africa, the frequency reported has been comprised between 0,3% and 3% [3,4].
Several factors have been associated to the happening of praevia placenta namely:
- advanced maternal age [1,4,5,6]
- multiparity [1,7]
_ scar uterus [6]
- antecedent of caesarean [1,8]
_ twinning [9]
Among the maternal complications of praevia placenta it can be cited:
- anaemia [4,5]
- shocks [7]
- puerperal infections [5]
- death [1]
Among the perinatal complications of praevia placenta it can be cited:
- respiratory distress [7]
- prematurity [5,11]
- weak weigh at birth [5].
In DRC the first work concerning praevia placenta (Kinshasa) has been performed by Imana (1976) who found that the frequency was 0,3%. In this work, the abortion (36%), caesarean (18%) and the antecedent of praevia placenta have been pointed out as favoring factors [3].
The second work, ten years after, in kisangani (DRC) is from Manga [1986] who found the frequency of 1,6%. In this work the curetage (44%), the caesarean (18,6%) and the advanced maternal age have been found the favoring factors [12].
It is hereby opportune to update the parameters of a new study in DRC on praevia placenta by means of echography, elegant tool of diagnostic precision.

III. MATERIALS AND METHODS
1.Material
The population of this work comprises the women in gestation 2nd- 3rd trimester admitted for praevia placenta in gynecology and obstetrics Department during the period of study
The sample was exhaustive and corresponded to the registered cases during the period of study.
2.Methods
It is a descriptive study. To collecte the data it has been proceeded to a documentary review (magazine). The files of lying-in women, registers of delivery wards, registers of major interventions and operating protocols have been used. The population has been selected on basis of inclusion criteria (files of women in gestation with praevia placenta whose variables have been found). The exclusion criteria concerned the incomplete files.
The study variables are:
- Maternal
* age, parity
* antecedent and favoring factors: abortion and curetage, scar uterus
* clinical signes: genital haemorrhage during 2nd and 3rd trimester
* echographical type of praevia placenta
* rate of Hb
* delivery mode
- Foetal
* foetal cardiac noise
* gestational age
* morbidity and mortality

- Perinatal
* apgar index
* weight of birth
* morbidity and mortality

Excel 2010 and SPSS 17.0 have been used for treatment and analysis of data.

Qualitative variables are expressed in percent.

Quantitative variables has been retained are expressed in average and standard deviation. The diagnostic has been retained when the rate of Hb< 10 g/dl (anaemia). The prematurity is a birth before 37 weeks of amenorrhoea.

The parity is defined as a number of pregnancies having caught the age of foetal viability, 28 weeks in our conditions, no matter the outcome of these conditions.

The pauciparous is a woman with a parity between 2 and 3, the multiparous is a woman with a parity between 4 and 5 and the large multiparous is a woman with a parity ≥6.

The cephalic presentation has been adopted as true. Data have been collected with authorization of Department in the total confidentiality and have been treated in nameless manner.

RESULTS AND DISCUSSION

The table I shows the annual frequency of praevia placenta

Year	Number of delivery	Praevia placenta	Frequency
2009	802	7	0,9
2010	854	17	1,9
2011	850	18	2,1
2012	665	14	2,1
2013	778	15	1,9
Total	**3 949,00**	**71**	**1,79**

Note that the more observed praevia placenta frequency (2,1%) has been in 2011 and 2012. The mean frequency is 1,79%.

The table II gives the sociodemographical characteristics of women in gestation with praevia placenta

Age (years)	patients	Percentage
≥ 19	3	4,23
20-34	44	61,97
≥35	24	33,8
Married	65	91,55
Single	6	8,45

The age group of 20-34 years has been represented in 62% of cases. The married women were 92% of cases.

Antecedent	patients	percentage
Abortion +curettage	29	40,85
Caesarean	7	9,86
TWINNING	3	4,23
Myoma	1	1,41

It can be seen in this table III the antecedents of abortion and curetage were the most met (41 % of cases)

The table IV shows the repartition of womens in gestation according to the complainants

Complainants	patients	percent
genital hemorrhage	56	78,87
genital hemorrhage + pain	29	40,85
Nothing	6	8,45

The main complainant has been genital haemorrhage (79%).

The table V gives the repartition of women in gestation as a function of echography performance.

Examination	patients	percent
Echography	55	77,46
without echography	16	22,54
Total	71	100

The echography has been realized in 77,46% of cases.

The figure 1 shows the types of praevia placenta observed

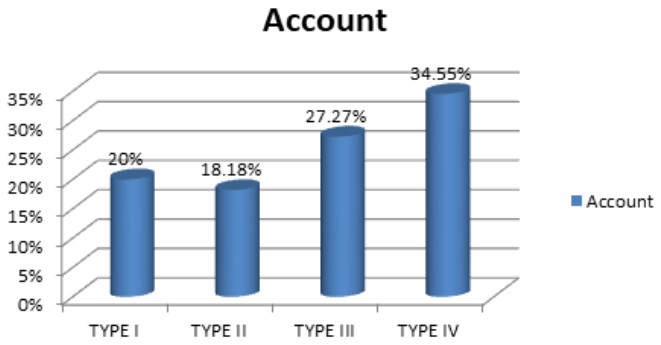

Figure 1. the types of praevia placenta observed

In this figure the praevia placenta of type IV has been more evidenced (34,55%) while the type III has been encountered in 27,27% of cases.

Among the women with praevia placenta 84,5% of cases have undergone caesarean whereas 15,49% of women have given rise normally overwall the type I and II.

The caesarean has been performed in emergency in 46% of cases for type IV, in 32% of cases for types III.

For the type I the caesarean has been delayed in 38% of cases and for type II in 31% of cases.

In the study in title, genital haemorrhage has been the principal complainant (50% of cases) and has been confirmed at physical examination (80% of cases). The praevia placenta diagnostic has been confirmed in 77,46% of cases; the type IV having been the most evidenced (34,55%) followed by the type III (27%). The author before us have not used echography [3,12]

Meanwhile our frequency is almost similar to the frequency found by Manga [12] in 1986 at kisangani (DRC).

Nevertheless the discrepancy observed between Imana and us in the same medical formation is probably due to the use of echography by us improving thus the specificity of the praevia placenta diagnostic.

In this study, the cases of praevia placenta are frequently noted in the age group of 20-34 years. Imana in the same hospital found an age group of 21-35 years while BUAMBO in congo brazaville found an age group of 26-35 years [5]. Manga[12],N'GUESSAN[6] and NAYAMA[8] have found that the patient were aged (28-37 years; ≥30 years and 35-39 years). These age groups correspond in Africa to multbirths women.

Concerning the marital status, 92% of women in gestation with praevia placenta are married. This corroborates the results of MANGA [12] on marital status of women in gestation (81%). Many researchers [5,7,12] have found like us that the multiparity increased the risk of happening of praevia placenta.

The table VI shows the frequency of praevia placenta according to the literature in different countries.

AUTEUR	PAYS	ANNEE	FREQUENCE
MARTIN	USA	2005	0,30%
DOUYSSET	France	2012	0,40%
LOUISE	Algerie	2012	0,45%
AKPADZA	TOGO	1996	1,09%
BUAMBO	REP CONGO	2004	0,60%
NAYAMA	NIGER	2007	3,00%
N'GUESSAN	COTE D'IVOIRE	2009	1,60%
BURODO ET AL	NIGERIA	2013	0,84%
IMANA	RDC/KINSHASA	1976	0,30%
MANGA	RDC/KISANGANI	1986	1,60%
Our study	RDC/KINSHASA	2014	1,79%

Also the abortions and curetages have been found the favoring factors.

Our results and BUAMBO; LOUISE and N'GUESSAN results [5,6,14] demonstrated that the caesarean has been the principal mode of delivery in the case of praevia placenta.

In this study the maternal morbidity has been dominated by anaemia [25, 35%]. The same observation has been done by NAYAMA [4], N'GUESSAN et al [6], LAKDAR and CHAOU [10].

The maternal mortality in our study has been zero while the literature situated it at 0,5%. It has been of 1,5% for Imana [3], 7% for MANGA[12] and 1% for BURODO et al[7]. This might be due to the utilisation of echography before delivery, the existence of qualified staff, the presence of available operating theatre and the presence of the reanimation equipments.

In our study, praevia placenta has been diagnosed in 29,58% of pregnacies before delivery. This diagnostic has justified the induced prematurities. Our rate is lower than the rate of BUAMBO [5] and MANGA [12] who have found respectively 71,9% and 55%. The forward diagnostic has allowed to adopt an armed expectation. In our study, 59,16% of newborns had a good apgar index (≥7) on first minute. BUAMBO found also that 50% of newborns had a good apgar index. On fifth minute, in our results 60,56% of newborns had a good apgar index(≥7). The apgar index on fifth minute has been improved. The Apgar index on first minute is not sufficiant to speak about perinatal prognostic.

In our study the perinatal mortality has been noted in 17%. Imana has found 14% [3] and BUAMBO 18,8%[5].

However MANGA[12] NGUESSAN[6], AWAD[8] and NAYAMA[4] found respectively the rates of 38,12%; 21,3%; 23,7% and 38,8%. This can be explained by the high rates of prematurity in their series.

This variability of perinatal mortality rate might probably be due to several factors namely the presence (or not) of echography for forward diagnostic, the later coming of women in gestation in hospital, the presence (or not) of reanimations equipments.....etc.

CONCLUSIONS

In 77,46%, the echography has allowed the precised diagnostic of praevia placenta. The major favoring factors of praevia placenta are abortions and curettages. The major maternal complication has been anaemia, the major perinatal complication has been the prematurity. The maternal mortality has been zero and the perinatal mortality 17%.

Recommandations

The systematisation of the practice of echography on women in gestation is recommended.

The knowledge of favoring factors of praevia placenta is deeply advised.

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