

Medicinal PLANTS in PARTURIENTS of Afia-Yetu HEALTH CENTER in Likasi (DRC) : Prevalence and INDICATIONS

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Abstract:-

➤ Context and objectives

Traditional medicine is sometimes the main mode of care delivery, sometimes the complementary mode to conventional medicine. In the DRC nearly 80% of the population resort to traditional medicine. This study aims to determine the frequency of the use of medicinal plants during parturition at the Afia – Yetu Health Center, to describe the types of plants used.

➤ Methods

This is a cross-sectional descriptive study, which covers a period from April 9 to June 9, 2018 on a sample of 111 cases.

➤ Results

45 parturients out of 111 surveyed had used medicinal plants, ie a frequency of 41%. The 18-34 age group represented 68.9%. The *Bridelia atroviridis* (57.7%) and *Acalypha homblei* (22.2%) were the most widely used medicinal plants. The reason for use was either giving birth quickly or giving birth better (77.8%) and sometimes giving birth without pain (22.2%).

➤ Conclusion

The study made it possible to take stock of the use of plants by parturients, showing that this is a common practice in our environment. This study opens up new perspectives for more in-depth studies with a larger sample.

Keywords:- Medicinal Plants, Parturients, Prevalence, Indications, Likasi, DRC.

I. INTRODUCTION

Across the world, traditional medicine is either the primary mode of health care delivery or a complement to the modern health system . According to the WHO, traditional medicine is very old, it is the sum of all the knowledge, skills and practices based on the theories, beliefs and experiences specific to different cultures, whether they are explainable or not, and which are used. in the preservation of health, as well as in the prevention, diagnosis, amelioration or treatment of physical or mental illnesses. In all continents, and through centuries man has used plants to relieve his ailments . For many millions of people, herbal medicines, traditional treatments and traditional practitioners are the main if not the only source of health care. This care is close to the people, easily accessible financially and culturally acceptable [1] .

Knowledge about plants has been organized, documented and passed on from generation to generation [2] . Today, the omen seem to be attracted by herbal medicine because of a desire to use a natural substance coupled with the perception that these drugs are safe, which is regarded as particularly important during pregnancy [3,4] . In 2015 a study on "the use of herbal medicines during pregnancy" determined the prevalence of herbal use during pregnancy, and made a description of the herbs that can be used during the gestation period [5] .

In DRC, a study on “ Medicinal plants used by pregnant women in Kipushi: Prevalence and indications ” found a prevalence of 7.5% [6] .

The use of medicinal plants during pregnancy and childbirth is part of traditional medicine. This practice has experienced a resurgence in popularity in recent years, especially during this period when we are witnessing the implosion of alternative medicine or alternative medicine.

This trend could influence the practices of parturients with the effect of maternal-fetal complications during childbirth due to the lack of mastery of the active ingredients and the methods of use of most of the plants used by women in labor.

This is why the WHO underlines that the widespread and growing use of medicine poses health problems in terms of : Policy, safety, efficiency and quality, access and rational use [7] . This makes this question a research priority.

Data on the incidence of the use of medicinal plants during childbirth do not exist in our country.

The objectives of this study are : To determine the hospital frequency as well as the different types of plants used with a view to proposing actions to improve the management of parturition.

II. METHODS

➤ *Study framework*

The present study was carried out at the AFYA YETU health center in the KIKULA health zone ; city of Likasi (semi-urban area) in the Democratic Republic of Congo.

➤ *Type and period of study*

This is a descriptive study using direct observation and interview. This study covers a three-month period from April 9 to June 9, 2018. Interviews are carried out according to two cases:

✓Or, during childbirth to know the plant used and the reason for use.

✓Or, with the midwives of the villages surrounding the city of Likasi to identify the plants they use during childbirth.

➤ *Sampling*

Our non-probability sample consisted of all parturients admitted to the maternity ward of the AFYA YETU health center during the study period, i.e. a total of 111 cases and 7 matrons from the village of Kakila and Kapolowe.

➤ *Inclusion criteria*

All parturients admitted to the maternity ward of the afya health center during the study period were included.

➤ *Variables studied*

Age ; provenance ; Profession ; Civil status ; Level of study ; Parity ; Plant used, Reason for use; Outcome of childbirth ; Fetal complication.

➤ *Statistical analyzes*

Analysis and processing of data performed on Excel 2013 software. The qualitative variables were generated in the form of absolute and relative frequency.

➤ *Ethical considerations*

On the ethical level we had the consent of the parturients and the management of the Polyclinic, our data was managed anonymously.

III. RESULTS

Table 1 reports that a total of 110 Parturientes participated in the study, of which 45 used medicinal plants, ie a frequency of 41%. The majority of our respondents (91%) came from the Kikula health zone. 92% were housewives ; 68.9% were between 18 and 34 years old, 68.9% had a high school education (Table 2).

Table 2 informs us that the first-time mothers as well as the multiparas represented 46.7%.

35 parturients (77.8%) used medicinal plants to give birth quickly against 10 parturients (22.2%) who wanted to reduce the pain of childbirth (Table 1). Table 5 shows that *Bridelia atroviridis* (Mulembalemba in the local language) is the most widely used plant (57.7%) followed by *Acalypha homblei* (Tshirbwalweni) (22.2%).

The outcome of labor was marked in parturients who used medicinal plants by bleeding from the delivery[1] (26%), cervical tears (22%), hypercinesia[2] (20%) and hypertonia[3] (11%) Table 6.

IV. DISCUSSION

In this study, out of 111 parturients who took part in the study 45 used medicinal plants, ie an incidence of 41%. This frequency is high compared to other studies, 7.5% in Kipushi [6] , but low compared to that found in Ethiopia 50% and Kenya 50.4% [8] . This high frequency is testament to the resurgence in popularity of herbal medicine and alternative medicine and it is increasingly seen that people are turning to natural medicine to solve their health problems. Especially since for some time we have seen in our community an unprecedented media coverage of the advantages of traditional medicine. The WHO says traditional medicine is gaining increasing interest in the population. And the demand for services in this area is growing [1] . Still according to the WHO, the population using traditional medicine for primary health care represents 90% in Ethiopia, 70% in Benin, India, and Rwanda [7] .

We dare to believe that this difference observed in our study would be related first to the target population, then the sample size, location and period of study. Unlike other studies, not only did we focus on pregnant women but also and especially those in labor.

The majority of our respondents (68.9%) are between 18 and 34 years old, the average age is 22.5 years with the extreme 16 and 39 years. In the ; Kipushi study, 46.67% of women were between 26 - 30 years old. In our series, the predominance of women aged 18 - 34 can be linked to the youth of the population in general, and also by what this age group corresponds to the sexually active population and of childbearing age.

In Kipushi's study, in DRC 56.67% had a secondary education level [6] . The low level of education may be a factor favoring the use of medicinal plants in our series,

68.9% of women had a secondary education level. This can be explained by the fact that pregnant women with a too low level of education live in a certain precariousness and ignore the danger linked to the consumption of certain roots or plants during childbirth. Traditional medicine is culturally acceptable [1]. The cultural inertia can also promote the use of this practice especially since this study was conducted in semi-urban areas.

In our series, nearly 91% of parturients come from the Kikula health zone in the surrounding neighborhoods. This is for reasons of proximity to the AFYA health center where the study was carried out.

In 57.7% of the cases the parturients used *Bridelia atroviridis* (Mulembalemba in the local language), It is the most famous medicinal plant of the parturients and the most used, 21% used *Acalypha homblei* (tshiribwalwenyi in Luba). The reasons for use mentioned are: give birth quickly or give birth better and give birth without pain. So starting from these reasons for use, it is clear that the population recognizes the utero-tonic and analgesic virtues (property) of the plants used.

In addition, the study of the evolution and outcome of childbirth among our respondents shows that disorders of uterine dynamics (hypercinesia, hypertonia), were noted in nearly 27%, hemorrhage of the delivery and tearing of the cervix accounted for 32% and 23%, respectively. This shows that these plants have utero-tonic virtues and can modify uterine dynamics. Only 16% of parturients who used medicinal plants during labor did not present a complication. Similar observations have been made by several authors [3–5,9]

In addition, in our series, fetal distress, neonatal infection, MFIU, neonatal mortality were identified as fetal complications. Timoti et al. in Quebec reported a result comparable to ours. [10].

V. CONCLUSION

The use of traditional medicine is widespread all over the world and is growing in popularity.

Our study has made it possible to take stock of the use of medicinal plants during childbirth, it shows that the use of medicinal plants is a common practice in women in childbirth, (Frequency) is 41%. The reasons for this use are either : to give birth quickly, or to give birth easily and without pain. Dynamic obstructed labor, cervical tears, acute fetal distress, postpartum hemorrhages have been identified as complications.

of traditional medicine and its integration into the national health system in accordance with WHO strategies. To fund research to identify the virtues of plants that can be used during pregnancy and childbirth.

This work therefore opens up new perspectives for more in-depth studies with a larger sample.

➤ *Current state of knowledge on the subject*

Prevalence studies on the use of medicinal plants in pregnant women

➤ *Contribution of our study to knowledge*

- To highlight the prevalence of the use of medicinal plants in a group of women during labor.
- Highlight the indications (reason) for the use of medicinal plants by women in labor.

Conflicts of interest : the authors declare no conflicts of interest.

Author contributions :

All the authors contributed to the realization of this work ; they read and approved the final version of the manuscript.

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Table 1. Characteristics linked to the use of medicinal plants during childbirth at CS AFYA YETU

Frequency of herbal use during childbirth	Workforce (n = 111)	Percentage
Women who used plants	45	41
Women who have not used the plants	66	59
Reason for use	n = 45	
Give birth well and quickly	35	77.8
Decrease childbirth pain	10	22.2

Table 2. Distribution of parturients according to socio-demographic characteristics

Settings	Workforce (n = 45)	Percentage
Profession		
Household	37	82.2
Student	7	15.6
Shopkeeper	1	2.2
Age (Year)		
<18 years	6	13.3
18 - 34 years old	31	68.9
≥ 35 years	8	17.8
Parity		
Primiparous	21	46.7
Pauciparous	3	6.6
Multiparous	21	46.7
Origin		
Kikula Health Zone	41	91
Outside the health zone	4	9
Study level		
Primary	10	22.2
Secondary	31	68.9
State diploma	4	8.9

Table 3. Distribution of respondents according to the plant used

Plant used Scientific name (Vernacular name)	Workforce (n = 45)	Percentage
<i>Acalypha homblei</i> (Tshirbwalweni)	10	22.2
<i>Bridelia atroviridis</i> (Mulembalemba)	26	57.7
<i>Crossopteryx febrifuga</i> (Kapeta nzovu)	3	6.6
<i>Crosopisse</i> (Tondondjima)	1	2.2
<i>Bidins piloza</i> (sonkontwe)	2	4.5
<i>Cymbopogon citratus</i> (Masela)	1	2.0
<i>Nenuphar</i> (makuba)	2	4.5
Total	45	100


Table 4: Distribution of cases according to the evolution of labor





Complication	Women who used the plants (N = 45)		Women who did not use the plants (N = 66)		OR [95% CI]
	not	%	not	%	
Hypertonia	9	81.8	2	18.2	2.7 [0.43-16.9]
Hypertonia	5	83.3	1	16.7	3.0 [0.27-32.2]
Haemorrhage from deliverance	12	80.0	3	20.0	2.4 [0.47-12.1]
Tear neck	10	62.5	6	37.5	1
Placental retention	3	75.0	1	25.0	1.8 [0.18-21.47]





Table 5 : Interview of the matrons on the Plants used for childbirth


Settings	Workforce (n = 7)	Percentage
Mulembalemba (<i>Bridelia atroviridis</i>)	7	100
Mulolo (Shilolo)	5	71.4
Katulumuna (Kufulumune)	5	71.4
Kapeta nzovu (<i>Crossopteryx febrifiga</i>)	6	85.7
Tondo ndjimba (<i>Crosoptisse</i>)	4	57.1
Makuba (Nenuphar) (lonha - longa)	4	57.1
Acalypha homblei (Tshirbwalweni)	6	85.7

APPENDIX I : Summary table of plants used during childbirth in Likasi

Last name	Plant	How to use	Dosage	Indication
Tshirbwaleni (<i>Acalypha homblei</i>)		– Maceration – Decoction	1 glass 3 times a day	Reduces childbirth pain

<p>Mulembalemba (<i>Bridelia atroviridis</i>)</p>		<ul style="list-style-type: none"> – Maceration – Decoction – Infusion 	<p>2 glasses per day</p>	<p>Rapid labor</p>
<p>MULOLO (Shilolo)</p>		<ul style="list-style-type: none"> – Decoction – Infusion 	<p>1/3 glass 3 times a day</p>	<p>Reduces labor pain</p>
<p>KATULUMUNA (Kufulumune)</p>		<ul style="list-style-type: none"> – Infusion – Decoction 	<p>1 glass per day</p>	<p>Rapid labor</p>
<p>KAPETA NZOVU (<i>Crossopteryx febrifiga</i>)</p>		<ul style="list-style-type: none"> – Maceration – Decoction 	<p>1 glass per day</p>	<p>Rapid labor</p>

<p>TONDO NDJIMBA (Crosoptisse)</p>		<p>Decoction</p>	<p>1 glass twice a day</p>	<p>Childbirth without pain</p>
<p>Sonkontwe (Bidins pilosa)</p>		<p>Maceration</p>	<p>Apply on the mother's stomach 3 times a day</p>	<p>Changing the position of the fetus</p>
<p>FLOMBOYANT</p>		<p>Maceration</p>		<p>Rapid labor</p>
<p>CITRONNELLE Cynlbopogon citratus (Macela)</p>		<p>– Maceration – Decoction</p>	<p>½ glass, 3 times a day</p>	<p>Rapid labor</p>

MAKUBA (Nenuphar) (lonha – longa)		Maceration	1 glass per day	Rapid labor
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[1] Delivery haemorrhage : it is a loss of blood originating in the genital tract, occurring at the time of delivery or in the 24 hours following childbirth, abnormal in their abundance (Greater than 500 ml) and (or) by their effects on the general condition.

[2] Hypertonia <> "