

## Research



# Awareness of epidural analgesia in labour and its acceptability by parturient in a tertiary hospital in Cameroon

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## Awareness of epidural analgesia in labour and its acceptability by parturient in a tertiary hospital in Cameroon

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## Abstract

**Introduction:** labour pains management is an important component of quality care in obstetrics but in Cameroon, very few maternities include this in their care plans. This study was conducted in the perspective to introduce labour pains management as part of routine obstetric care in tertiary hospitals.

**Methods:** we conducted a cross-sectional prospective study of 7 months during which an interviewer structured questionnaire was administered to respondents who were conveniently selected at the outpatient gynaecological unit. All pregnant women who were not scheduled for elective caesarean section and had no contraindication to epidural anaesthesia (EA) were asked to participate. The questionnaire had sections on awareness of epidural anaesthesia, labour pains perception and its control, and willingness to accept anaesthesia. **Results:** there were 270/336 (80.35%) respondents aware of EA. The main source of information was mass media in 39.63%. 62.5% considered labour pains "as normal and only 9.83% of them consider it unbearable. Conversely, 68.45% of respondents against 31.55% were favourable to epidural anaesthesia. Sixty point seventy one percent (60.71%) of study participants express willingness to accept Epidural anaesthesia in future labour for various reasons including need for a comfortable labour (23.81%), to experiment (23.81%), and because of past experience (9.83%). The majority of the 39.29% who refused epidural anaesthesia was because of fear of related risks or complications (80.80%). **Conclusion:** majority of respondents knew about and would accept epidural anaesthesia. Those who would refuse the procedure included claimed fear of complications. Health carers must be sensitized to integrate information on epidural anaesthesia in the education package.

## Introduction

Vaginal delivery is the natural method of childbirth. However, labour is a period of anxiety and challenges during which childbearing women have mixed feelings, with the excitement of giving birth

to a living child and the fear of the painful labour experience [1,2]. Majority of parturient perceive labour pains as very severe and would need some form of pain relief [2]. Several ways of coping with labour pains have been identified including non-pharmacological methods, epidural anaesthesia and others. Determinants of the perception of labour pain experiences are various and described as psychosocial, cognitive and environmental [3]. The practice of pharmacological method in western countries to reduce labour pains is almost systematic for Caucasian women. Several methods have been used including inhalational gas, parental opioids and neuraxial method (epidural or combined epidural and spinal analgesia) [4, 5]. In USA and Europe, EA is systematically proposed to parturient here and more than 70% of women use this procedure to cope with labour pains [5]. Literature reports that very few maternities in Asia and Africa use pharmacological methods to assist childbearing women cope with labour experiences [3, 6-8]. Increasing numbers of African women are becoming aware of efficient methods of alleviating labour pains. In fact, studies in Nigeria and other sub-Saharan countries have shown that more and more women express desire of satisfactory pain control in labour but these desires seem to be unmet [2,7,9]. Despite this knowledge, individual woman still believe that labour pains, though severe, is normal and should be accepted [9, 10]. Several determinants drive this denial of the need of labour pains including religious beliefs, midwives and other care givers' attitudes and perceptions of labour pains, cultural background [9]. Very few data exist on the labour pains management in Cameroon. Review of literature found little information on EA apart from some case reports. Nkwabong *et al.* reported a case of silent uterine rupture during labour under epidural analgesia in 2008 [11] in a teaching hospital in Cameroon and according to the authors, the symptoms of uterine rupture were masked by EA. This report suggests that EA is only casually used in some tertiary maternities in Cameroon. The objective of this study was thus to evaluate the awareness of EA by Cameroonian women, the

acceptance of the methods and determinants of their attitudes.

## Methods

**Ethical consideration:** we sought and obtain ethical clearance from the institutional research board of the Douala Gynaeco-Obstetric and Pediatric Hospital (DGOPH).

**Type of study:** this was a descriptive cross-sectional study of 7 months from June 1<sup>st</sup> 2018 to December 30<sup>th</sup> 2018 at the outpatient unit of the gynaecology and obstetrics department of Douala Gynaeco-Obstetric and Paediatric Hospital (DGOPH). DGOPH is a tertiary hospital created in 2013 and put to service from August 25<sup>th</sup> 2015, dedicated to mother and child care. The hospital has 10 gynaecologists and obstetricians, 3 anaesthetists and reanimators, 14 midwives or assimilated and 3 nursing-aids. Its main missions include offering high quality and innovative care to all its users. The maternity department is equipped with tools to appropriately monitor labour and deliveries including cardiotocographic machines, electric syringes and modern anaesthetic sets. We conveniently included in the study all pregnant women attending the antenatal clinic and consenting to participate to the study. Women booked for elective caesarean section or having a contraindication to epidural anaesthesia were excluded. A pretested structured interviewer questionnaire developed by researchers was administered to respondents to elicit socio-demographic data including the age, parity, profession, level of education and religious background, their knowledge of EA, and their sources of information. The willingness to accept or to refuse the method in future delivery and reasons supporting the attitude were also assessed. In this study, awareness was simply the fact of having heard about the technique called EA which could alleviate or eliminate labour pains; the site of administration of the analgesia. An explanatory notice containing information on the procedure, how it is administered and expected benefits during labour was given to women seeking prenatal care.

Those willing to participate to the study were administered the questionnaire by a researcher. Data collected were recorded in an Excel file and analysed using SPSS version 23 software.

## Results

Three hundred and fifty four pregnant women were submitted to the questionnaire but only 336 were included in the study. Eighteen respondents were excluded from the study for various reasons: eight women were booked for planned caesarean section and 10 refused to answer all or some sections of the questionnaire.

**Socio-demographic characteristics of study participants:** the age of the patient ranges from 19 to 40 years with a mean age of 30.35 years. The most represented age group was 33-39 years with a proportion of 144/336 (42.85%). Respondents were predominately educated with 71.42% having at least university level (Table 1). The greatest proportion of women was either nulliparous or primiparous (66.38%).

**Awareness and knowledge of EA and sources of information:** we interviewed 336 pregnant women out of which 66 (19.65%) have never heard about epidural analgesia in labour. The remaining 270 (80.35%) were aware of EA from various sources (Table 2).

**Perception of labour pains and epidural analgesia:** participants were asked how they perceive labour pains on one hand and EA in the other hand. The answers are summarised in Table 3 and Table 4.

**Attitude towards EA:** asked if they would accept to benefit from EA during labour, 204/336 (60.71%) said yes against 132 (39.29%) who refused. The reasons for acceptance or refusal of the procedure are summarised in the table below (Table 5).

## Discussion

Eighty point three five 80.35 percent of respondents knew about EA from various sources. This figure is very high and not consistent with the ones reported by many authors in Africa and Asia where only 5.5% [12] to 20.5% of pregnant women were aware of EA [13-16]. The important difference could be explained by the fact that more of these studies were done in the first decade of the 21<sup>st</sup> century and the heterogeneity of their study population. Unlike in the above mentioned studies, the majority of our respondents (71.42%) have a high school level of education and the sources of information were predominantly the mass media in 39.63%, health care provider 25.92%, and other pregnant women 18.52%. In most recent studies in North Nigeria, Ogboli-Nwasor *et al.* [17] found that 87.3% of prenatal women were aware of epidural analgesia in labour and the main source of information was health workers in 79% and M. Fawaz *et al.* in Libanon [18] reported a figure of 90% of women who knew about EA in a study published in 2018.

We analysed the sources of information and it is worth noticing that health care providers notably were the source only for about a quarter of the study respondents. This is an indication that obstetric health care providers in our setting have not integrated pharmacological management of labour pains in the content of their education for preparation of labour. We are unable to tell if it is because of the negative perceptions these procedures by carers who prefer non pharmacological methods such as continuous support, breathing exercises like in the study reported by Lydia Aziato *et al.* in Ghana [9] or because lack of knowledge of these pain management during labour. It is not surprising that the main source of information is the mass media, owing to the influence of new techniques of communication and information like the social media, television and others.

**Labour pains perception:** two hundred and ten out of 336 (62.5%) perceive labour pains as normal (in conformity to God's will), 27.67% as severe and only 9.83% of them find this unbearable. In a recent systemic review [3], difference of labour pain perception has been described as due to psychological, environmental and other behavioural factors. Many authors in sub-Saharan Africa and Asia reported labour pains perception as severe from parturient point of view [2,6,19,20].

**Perception of EA:** the majority (68.45%) of our respondents have a positive view on EA as necessary to alleviate pains and help to cope with childbearing experience. In fact, more and more women in low and middle income countries are expressing the need of having pain-free labour [7,10,12]. Out of the 230 respondents who were favourable to EA, 52 (22.60%) answered that labour pains was normal. The answer "normal (in conformity to God's will)" as given by the majority of our respondents is ambiguous because these could express only their ability or their preparedness to cope with labour pains. We therefore think that the proportion of 27.67% of respondents who perceive labour pains as severe is underestimated. Perception of labour is driven by various determinants including religious beliefs, psychological, environmental factors and fear of caregivers' attitudes towards parturient [19]. Studies in countries in sub-Saharan Africa have highlighted the fact that many women who proclaim negative perception of labour pains management cry or scream during the labour [6]. Ignorance of their right to painless labour, fear of the attitude of health workers and refusal to be seen as emotionally weak [6,9]. One hundred and six respondents (21.65%) express negative perception of EA. When we asked the reasons of their unfavourable view, 43 out the 106 (40.56%) answered that EA is "European style", 28 (26.41%) that EA betrays parturient's weakness and 35 (33.01%) that EA represents an unnecessary expense. The perception of labour pain and its management is dependant of various factors including cultural background, lack of knowledge, fear of negative judgment, ignorance of the right to

pain-free labour. The absence or health insurance coverage or refusal of insurance companies to reimburse the cost of labour pains management could justify the view of certain pregnant women.

**Attitude towards EA:** two hundred and ten out of the 336 (60.71%) of the study participants expressed their willingness to accept EA in future labour. This attitude is consistent with what is reported in literature. In a study conducted in Nigeria, Okojie N.Q. *et al.* [15] found 76.5% of respondents who would accept epidural analgesia if they were offered. Other authors [10,17] reported figures of 45.8 to 50% of pregnant women who were favourable to EA. On the contrary, in a similar study conducted in Enugu in Nigeria, Oladokun *et al.* [13] reported only 15.8% of study participants who will accept EA. We wanted to understand the reasons supporting the readiness to accept EA in future labour and the majority claimed that childbirth must be comfortable (23.81% of cases) and that they would wish to experiment the actual effect of this procedure (23.81%) meanwhile 13.9% of them justified their option by the previous experience. Those who were unfavourable to EA (39.29%) elicited the following reasons: “labour pains must be respected” (30.30%), fear of risks (80.80%) and inability to bear the cost (9.09%).

## Conclusion

This study showed that 80.35% of pregnant women attending antenatal care in DGOPH were aware of EA and the main source of information was mass media in 39.63% of cases. Health care workers were the source of information only in 25.92% of cases. The majority of the respondents (62.5%) perceived labour pains as “normal in conformity with God’s will” but conversely 68.45% expressed positive views on EA. Concerning attitude towards EA, 60.71% of respondents expressed their willingness to accept EA in future labour and reasons of acceptance included that labour must be comfortable (23.81%), to experiment (23.81%), and because previous labour pains was unbearable (13.9%). Thirty nine point nineteen percent

(39.19%) were unfavourable to EA because of fear of related risks (80.8%), labour pains must be respected (30.30%) and the additional cost (9.09%). Lessons for medical practice are: obstetric care providers should be sensitized to integrate information on EA in the content of their health education program; pregnant women should be sensitized on their rights to pain-free labour; the choice to use EA or not by parturient must result from an informed consent

### *What is known about this topic*

- *It is known that women worldwide perceive labour pains as severe and the majority of them in Western countries require labour pains control. The best method of coping with labour pains is epidural analgesia which is almost systematically proposed to parturient. In Africa, there is “an anecdotal” assertion that African women tolerate labour naturally and would not need a form of labour pains control. Yet, Few studies done in sub-Saharan Africa, notably in Nigeria have highlighted that growing numbers of African women are demanding labour pains control. In Cameroon, to the best of our knowledge, no study has evaluated the knowledge or attitude of parturient towards Epidural analgesia.*

### *What this study adds*

- *This study reveals that More than 80% of participants are aware of epidural anaesthesia, it analyses the sources of information and the perception of epidural anaesthesia by Cameroonian women. Furthermore, it highlights reasons of negative perception of this procedure by some women. Finally, obstetrical health care providers will found arguments to reconsider their attitudes towards the labour pains control.*

## Competing interests

The authors declare no competing interests.

## Authors' contributions

Tchounzou R, Inna Rakya, Neng Humphry Tatah designed the study and wrote the protocol; Ngalame Alphonse, Moustapha Bilkissou, Kamdem Diane and Mwadjie Wekam participated in patients recruitment. Tchounzou R wrote the manuscript, Simo Wambo A, Nana Njamen T, Djomo Tachom D corrected the manuscript. Mboudou Emile T supervised the manuscript writing. All the authors approved the final version

## Tables

**Table 1:** distribution of participants' socio-demographic characteristics

**Table 2:** distribution of participants according to sources of information

**Table 3:** distribution of respondents according to perception of labour pains

**Table 4:** distribution of respondents according to perception of EA

**Table 5:** distributions of participants according to acceptance or refusal of EA

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**Table 1:** distribution of participants socio-demographic characteristics

Age distribution	Age groups	Frequency	Percentage(%)
	19-25	80	23.81
	26-32	99	29.47
	33-39	144	42.85
	40	13	3.87
Total		336	100
Parity distribution			
	0	105	31.26
	1	118	35.12
	2	27	8.03
	3	45	13.40
	4	14	9.16
	5	27	8.03
Total		336	100
Level of education distribution	Ed. level		
	Primary	16	4.77
	Secondary	80	23.81
	University	240	71.42
		336	100

**Table 2:** distribution of participants according to sources of information

Sources	Frequency	Percentage (%)
Peer only	50	18.52
Media only	107	39.63
Health care provider	70	25.92
Peer + Media	30	11.12
3 sources	13	4.81
Total	270	100

**Table 3:** distribution of respondents according to perception of labour pains

Perception	Frequency	Percentage (%)
Normal "from God"	210	62.50
Severe	93	27.67
Unbearable	33	9.83
Total	336	100



**Table 4:** distribution of respondents according to perception of EA

Perception of EA	Frequency	Percentage (%)
Necessary to alleviate pains	230	68.45
Mimicking European>	43	12.80
Weakness of parturient	28	8.33
Unjustified expenses	35	10.41
Total	336	100

**Table 5:** distributions of participants according to acceptance or refusal of EA

Yes to EA N = 204			No to EA N = 132		
Reasons	Frequency	Percentage			
LC	80	23.81	LR	40	11.90
PU	44	13.09	FR	80	23.81
EP	80	23.81	HC	12	3.55

LC: labour must be comfortable, PU: previous labour was unbearable, EP: to experiment, LR: labour should be respected, FR: fear of risks, HC: high cost