WOMEN’S SOURCES OF INFORMATION AND KNOWLEDGE ABOUT EPIDURAL ANALGESIA

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Summary
Labor pain is one of the greatest pains experienced by women throughout their life. Relief of this pain is an important issue for women in labor [1]. Epidural analgesia is the most effective pain relief method and is considered the gold standard of labor analgesia [2]. Nevertheless, scientific studies reveal limited parturient knowledge about epidural anesthesia [3,4]. This study has been conducted to assess the knowledge, sources of information, and attitudes regarding epidural analgesia among young mothers. The study was conducted at the Hospital of Lithuanian University of Health Sciences Kaunas Clinics. The study took place in November 2022 by using a pre-designed questionnaire. A total of 102 questionnaires were distributed to parturient and 100 were returned, the response rate was 98%. The study shows that more than two-thirds of women agree that epidural analgesia is the most effective method for labor pain management. The internet remains the main source of information for women. The demographic variables were not associated with the desire to request epidural analgesia in the future. Women who know about the effectiveness of epidural analgesia are more likely to choose an epidural in the future. Therefore, it is important to provide more information about the methods of labor pain relief to women during pregnancy.

Introduction
Labor pain is one of the greatest pains experienced by women throughout their life [5]. Women giving birth for the first time are mainly afraid of the unknown. Thoughts about the excruciating pain that they might experience during childbirth are usually unsettling. Also, when frightening information is conveyed, there can be negative effects on other women’s personal childbirth stories. On the contrary, women who already have experienced labor already have their experiences of pain, which is usually related to previous negative experiences [6]. Women start to worry about whether they can cope with the birth pain and which analgesia method to use, even during pregnancy. The pain of childbirth is so severe that opium and its derivatives have been used thousands of years to treat it, along with many other folk remedies [7]. Although some women still prefer natural, non-drug pain relievers, a significant part chooses epidural analgesia [5].

Epidural analgesia was introduced in the 1960s and is still the most effective method of labor pain relief. This technique involves inserting a very fine catheter into the epidural space for continuous infusion of local anesthetics. The injected drug diffuses through the lumbar epidural space into the subarachnoid space, where it primarily acts on the spinal cord and paravertebral nerves to inhibit the spreading of pain impulses [8]. It almost completely reduces labor pain [90-95%] if used on time [5]. Despite the undeniable benefits of epidural analgesia, not all women choose to use this tool due to a lack of awareness. One of the reasons not to choose epidural analgesia is that medical facilities do not always provide enough necessary information to women before childbirth [9]. During a study carried out in Lithuania in 2016, most mothers in labor are not provided with detailed information about methods of pain relief during childbirth, their advantages and disadvantages, and only more than a third of mothers in labor receive sufficient information about labor analgesia [10]. The Association of Anaesthetists of Great Britain and Ireland strongly recommends that all women should receive evidence-based information about all analgesia options from a healthcare professional before giving birth [11].
The aim – the study has been conducted to assess the parturient knowledge, sources of information, and attitude regarding epidural analgesia.

Methods
To evaluate the knowledge of parturients about epidural analgesia, we chose a University hospital providing such services. An Ethics Committee permit was granted (BEC - MF – 14). The study was conducted at the Hospital of Lithuanian University of Health Sciences Kaunas Clinics. The study took place in November 2022 by using a pre-designed questionnaire. The permission of the authors to use the questionnaire was provided. Inclusion criteria: women who were admitted for labor and had vaginal delivery during the period of the study. Exclusion criteria: women who had a cesarean section, multiple gestation pregnancies, and stillbirth deliveries. The purpose of the research was explained to respondents before conducting a personal questionnaire survey. The questionnaire was submitted to each respondent personally. Patients read the survey and study investigators were available to assist participants in completing the survey and clarify any questions that arose. The survey was distributed to the patients the next day after their delivery. The survey consisted of variables which were age, education level, income, occupation, source of previous knowledge of epidurals, and awareness of the usage of epidural analgesia, its indications, and side effects. Data were analyzed with IBM SPSS Statistics 27. Data for qualitative variables are presented by indicating the frequency - number of respondents (n) and percentage expression. Means and standard deviation values of quantitative variables are presented. Chi-square ($\chi^2$) was calculated to assess differences between the groups. Phi and Cramer’s tests were used to assess the relationship between categorical data. Results were considered statistically significant when $p<0.05$.

Results
A total of 102 questionnaires were distributed to parturient and 100 were returned, the response rate was 98%.

The average age was 29.7±4.7 years. The youngest interviewee was 19, and the oldest was 45 years. More than half of the women had higher education 68 (68%). 68 (68%) of the respondents live in the city, and 32 (32%) live in rural areas. 63 (63%) women were primiparas. 91 (91%) named their income as average and sufficient. 71 (71%) women thought that epidural analgesia was the most effective method of pain management. (Figure 1.). 69 (69%) women considered pain relief a major reason for requesting epidural analgesia, and 36 (36%) mentioned possible risks for newborns and 26 (26%) side effects for mothers (such as back pain and headache) as their main concern. The Internet was the main source of information for 50 (50%) women (Figure 2.). In most cases, partners’ opinion about epidural analgesia was neutral 66 (66%) only 4 (4%) partners were against epidural analgesia. 35 (35%) women were not sure about requesting epidural analgesia in the future, 44 (44%) said yes, and 21 (21%) are against epidural. Women who know that epidural analgesia is the most effective analgesia method, statistically significantly more often choose to use epidural analgesia in the future ($\chi^2=17.272$ Phi 0.416 $p<0.001$). The number of previous labor, age, level of education, income, and place of residence were not significantly associated with women’s decision to choose epidural analgesia in the future.

![Figure 1. The most effective method of pain management according to women](image1)

![Figure 2. The main sources of information about epidural analgesia prior to labor according to women](image2)
Discussion

Our results revealed that 71% of the participants knew that epidural analgesia is the most effective method for labor pain relief. Many studies support this statement, as epidural analgesia is still considered to be the gold standard for labor pain treatment [7,12,13]. The analysis found that socioeconomic factors such as age, income, and place of residence did not predict patient reluctance to receive epidural analgesia. Data from our study also did not identify a relationship between higher education and the desire to choose epidural analgesia. This data is also confirmed by the study conducted by P. O. Ezeonu, who found that higher education did not correlate with the level of understanding and practice of epidural analgesia [8]. Meanwhile, in 2022 a study in Saudi Arabia found that educated participants were more likely to request epidural analgesia during childbirth [9]. Similarly, a study carried out in the United States revealed a significant association between the level of education and epidural rate [14].

Safety and side effects are common issues when women discuss epidurals and labor analgesia. Women from our research were mostly concerned about the possible risks for newborns and side effects for mothers. Other research shows similar misconceptions related to epidural analgesia [8,15]. Epidural analgesia has evolved since its introduction for labor pain treatment [16]. It is important to clarify women’s knowledge about the epidural and encourage them to seek accurate, up-to-date information to guide their decision-making. A study conducted in China analyzed 15415 deliveries and researchers concluded that the usage of labor epidurals in the first stage of labor is safe for both parturients and newborns and can even reduce the frequency of cesarean-section delivery [17]. The sources of information used by the women we surveyed were very varied. This may reflect that no systematic method for labor analgesia information dissemination exists. We analyzed the sources of information and it is worth noticing that healthcare providers surprisingly were the source only for about a quarter of the study respondents. This illustrates that healthcare providers in our setting have not integrated pharmacological management of labor pain into the content of their education for the preparation of labor. A similar problem emerged during a survey conducted in Lithuania in 2015, according to the research 66.4 percent of pregnant women believed that obstetricians did not provide a sufficient amount of information about pharmacological methods of pain relief during antenatal care [10]. Therefore, most women in our survey used the Internet as a source of information. Research made a decade before in Karachi showed that doctors were the source of information among 40% of the respondents and the internet accounted for only 1%. This illustrates that advances in technology and the internet have made information more accessible [15]. Nevertheless, research conducted by J Murphy and others assessed the quality and accuracy of internet-based patient education material relating to labor analgesia. Results showed that Google searches lead to information of variable quality and readability. Inaccurate information may lead to incorrect expectations during labor and can potentially cause lower maternal satisfaction [18] (Table 1.).

Conclusions

1. The Internet remains the main source of information for women. More than two-thirds of women agree that epidural analgesia is the most effective method for labor pain treatment.

2. The number of previous labors, age, education, income, and place of residence were not significantly associated with women’s decision to choose epidural analgesia in the future. However, women who knew epidural analgesia was the most effective procedure were more likely to choose an epidural in the future.

References


MOTERŲ ŽINIOS IR INFORMACIJOS APIE EPIDURINĘ ANALGEZIJĄ ŠALTINIŲ
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Raktąžodžiai: epidurinė analgezija, gimdymo skausmas, akušerinė analgezija, žinios.

Santrauka