Original Research Article

Woman's and nurses knowledge and awareness regarding epidural analgesia.

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Abstract: Epidural analgesia is a recognized technique for efficacious post-operative anaesthesia and analgesia and is also widely used to assist with the management of pain in the obstetric setting. But very little is known about the epidural analgesia. Thus the present study was done to assess the woman's and nurses knowledge and awareness regarding epidural analgesia. The study was done including of 120 woman's coming to the OPD of the anesthesiology department, SMBT medical college, Dhamangaon, dist. Nasik, for the pre-surgical tests. Also the study was consisting of the 58 nursing staff of the medical college as well as nearby multispecialty hospitals. The study was done with the help of specially prepared questionnaires which were validated by doing pilot study. All the responses were collected, tabulated and analyzed using IBM SPSS statistics version 20, with the help of student's t test. On comparison of the score of the knowledge and awareness of the woman's and nursing staff, it was found that the nurses were having more scores as compared to general woman's and the difference was found to be statistically highly significant. (Student's t test, $p<0.001$). Knowledge associated with epidural analgesia was widely variable. The most of the respondents were aware of the complications of back pain and the extremely rare risk of epidural hematoma resulting in paralysis.
Keywords: Epidural Analgesia, Labour Analgesia, Pain Relief

INTRODUCTION

Pain during childbirth is a well-known cause of dissatisfaction amongst women in labour. The use of epidural analgesia in labour is becoming widespread due to its benefit in terms of pain relief. Pain relief for labour is an important concern for women, both during pregnancy and in childbirth. The use of epidural analgesia in labour is widespread, and the benefits in terms of pain relief are well recognized [1].

Epidural Analgesia is a technique of injecting a combination of local anesthetic and opioid analgesic into the lumbar epidural space. This then diffuses into the subarachnoid space where it acts on the spinal nerve roots to block action potential transmission, thus inhibiting perception of pain [2]. Epidural analgesia minimizes the labour pain by decreasing blood catecholamine levels, which in turn significantly increases intervillous blood flow in healthy pregnant women. So, it is the only technique capable of relieving labour pain satisfactorily without maternal or fetal sedation and is the most effective method for restoration of normal uterine activity [3].

Thus the present study was done to assess the general woman's and nurses knowledge and awareness regarding epidural analgesia.

MATERIALS AND METHODS

The study was done including of 120 woman's coming to the OPD of the anesthesiology department, SMBT medical college, Dhamangaon, dist. Nasik, for the pre-surgical tests. Also the study was consisting of the 58 nursing staff of the medical college as well as nearby multispecialty hospitals. The study was done with the help of specially prepared questionnaires which were validated by doing pilot study. Total 20 questions were used to judge the knowledge and awareness regarding the epidural analgesia, consisting of need for the analgesia, site of analgesia, side effects, precautions to be taken, post-operative care, benefits of the analgesia, etc. Approval of the ethical committee was taken before start of the study and informed consent was taken from each of the participants. Each correct answer was given score 1 while wrong answer was given score zero. While the score of the

participants who were given double responses for the one-answer questions were cancelled.

All the responses were collected, tabulated and analyzed using IBM SPSS statistics version 20, with the help of student's t test.

RESULTS

On comparison of the score of the knowledge and awareness of the woman's and nursing staff, it was found that the nurses were having more scores as compared to general woman's and the difference was found to be statistically highly significant. (Student's t test, p<0.001) Therefore it was found that the overall knowledge in the general woman population regarding epidural analgesia during labour was poor. Also although the nurses were having more scores as compared to woman's, but the scores was not satisfactory, as nursing staff were first to contact to the patient as well as their relatives. Thus they must have enough knowledge and awareness regarding the same. (Table 1 and Graph 1)

Table-1: Comparison of the scores of the woman's and nursing staff regarding the knowledge and awareness of the epidural analgesia.

Group	Number of participants (n)	Score Mean SD	T value	P value
Woman's	120	11.34 4.15	6.5543	<0.001*
Nursing staff	58	14.67 5.32		

SD= Standard deviation.
*P<0.001= statistically highly significant.
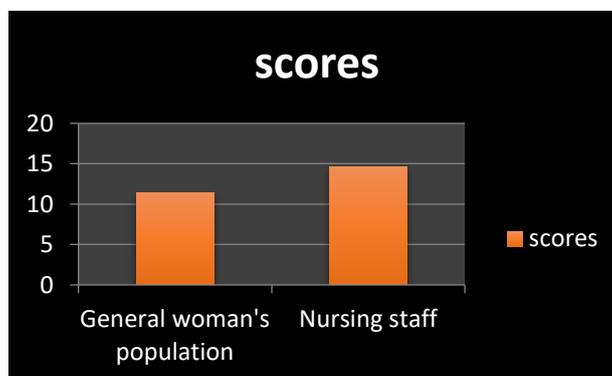
Fig-1: Comparison of the scores of the woman's and nursing staff regarding the knowledge and awareness of the epidural analgesia.

DISCUSSION

Anaesthesiology is one of the youngest branches of medical science that has made immense development. Advances in surgery and anaesthesia go absolutely parallel to each other. During last thirty years, role of anaesthesiologist has extended not only inside but also outside traditional operating room settings. Anaesthesiologist plays a very critical role in intensive critical care units, trauma centers, pain clinics and as a member of resuscitation team all over the world [4].

Because women have information needs surrounding childbirth and value self-determination full informed consent regarding epidural analgesia should be a priority in all patient care. However because of the timing and the clinical circumstances the consent process is frequently carried out in a superficial or abbreviated manner [5].

The epidural therapeutic administration of drugs was practically initiated in 1884, when Corning, a New York neurologist, administered cocaine through a needle inserted at level T11-T12 [6].

The pain during labour is a central part of women's experience of childbirth, whose excruciating nature makes most women want to alleviate it. Childbirth is among one of the most intense pain that majority of women will endure during their lifetime. Concerns about pain in labour remain a hot topic, and its popularity gets more common day by day as more women become aware of their rights to achieve a better quality of care during labour. Normal vaginal delivery for women is a painful event due to frequent uterine contractions, cervical dilatation, stretching of the lower uterine segment and vaginal lacerations. Thus labour pain is one of the major issues women face during the final phase of pregnancy, which can affect all multidimensional aspects of pregnant women's daily life. Unrelieved, labour pain may have a negative impact on the lives of the expectant mother to such an

extent that she, including her baby and family members, may also get affected [3,7,8].

There have been some controversies trailing the use of labour analgesia with regard to the outcome of labour. While some studies advance that epidural labour analgesia increases cesarean section rates, others say it does not influence these rates [1, 3].

Pain relief management during labour has undergone various advancement since 1847, when Simpson found that chloroform could help relieve the pain which will women feel during labour. His findings were not received favorably on religious and medical grounds [9].

Similarly, another study in the Indian women by Barakzai A. *et al.* found that there is poor general awareness of women about the proper role of epidural analgesia during labour, which makes a low patient demand for such analgesic services [10].

The results of the study by William WK showed poor general awareness of pregnant women towards the proper role of epidural analgesia in labour, leading to a low patient demand for such services [11]. In his survey, only 994 (47%) of antenatal patients reported having been exposed to the concept of epidural analgesia in labour. This study also revealed that the leading cause of a low patient demand for epidural analgesia in labour is poor general awareness of pregnant women about the proper role of epidural analgesia and lack of adequate resources to meet the demand. The study by Minhas MR *et al.* found the awareness of epidural analgesia in the majority of the pregnant women. However, only a small proportion was availing this service, due to fears and misconceptions [12]. Also, a study in the Indian pregnant women showed that majority of mothers still suffer from the agony of labour pain because of lack of awareness, unbound fears and lack of knowledge about the availability of the analgesia service [3, 13].

CONCLUSION

Knowledge associated with epidural analgesia was widely variable. The most of the respondents were aware of the complications of back pain and the extremely rare risk of epidural hematoma resulting in paralysis.

The majority of respondents wanted that the anesthesiologist or their assistants should discuss about all the anesthesia procedure and other important issues about anesthesia with them.

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