

Evidence-Based Practice

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A1. Quantitative Article: To compare the efficacy of tramadol and pethidine for control of intraoperative shivering under spinal anaesthesia in elective caesarian

A2. Introduction

Physicians always use regional anaesthesia when performing surgeries because it is the safest anaesthetic technique. Shivering has many side effects on the patient, including making the patient physiologically stressful, especially after using modern anaesthetic, which creates a comfortable feeling. The neuro-axial anaesthetic technique is recommended for use in caesarian section because it has a lower rate of maternal morbidity and death rate with a low level of neonatal depression as compared to the normal anaesthesia. Proper methods of controlling shivering should be established since shivering interferes with electrocardiogram monitoring, the pressure of blood and pulse oximetry. It also raises the systolic work of the left ventricular and the consumption of oxygen.

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Additionally, shivering compromises with the functioning of the myocardia in patients with decreased myocardial function reverse (Khan, 2016). It also interferes with the recovery of the wound making it more painful and also raises intracranial and intraocular pressure. This paper will discuss the effectiveness of tramadol in the treatment of post-spinal shivering with very minimal side effects in obstetric patients over pethidine agent.

A2. Literature review of shivering

Aetiology

Many surgical patients who are not warmed are made hypothermic by the combination of anaesthetic induced impairment and exposure to an environment that is cool. Hypothermia triggers shivering which at sometimes occurs in normothermic patients during the perioperative period. Its aetiology has not yet been approved by studies even though thermoregulatory shivering is caused by the presence of cold. Shivering can also be caused by fever, stress which causes involuntary movement of the body, during consciousness regaining especially after a general anaesthetic, essential tremor, during sepsis, anxiety and low blood sugar (Khan, 2016).

Clinical impact

Even though shivering helps in raising the body temperature, it has a lot of side effects more specifically to those recovering from anaesthesia (Khan, 2016). It creates an uncomfortable feeling as reported by patients who were once affected by it. It also increases cardiac output, heart rate and pressure of the arteries. The above effects make shivering more disadvantageous, thus the need to control its existence.

A2. Methodology

A double-blind, randomized clinical trial was used to carry out this study. The research was carried out in the department of anaesthesia MTI. To carry out the study, an 18 gauge venous

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cannula was inserted into the largest vein of the dorsum of the hand in the operating theatre on patients who consented to participate in the study through a written note. A lactated ringer's solution was then filled at a rate of 10ml/kg/h for 30 minutes before carrying out the anaesthesia of the spine. The rate of infusion was then lowered to 6ml/kg/hr.

The interspaces that spinal anaesthesia was used to give patients was L3/L4 or L4/L5 interspaces. The patients were then laid in a supine position with the uterus facing the left side. This was done using a pad placed under the right hip. The level of hydration was maintained at 6ml/kg/hr. after blockage.

The patients that experienced shivering were divided into group I and II and then administered with 1% of tramadol of 1% of 1mg/kg and 1% of pethidine of 1mg/kg respectively to prevent the shivering that the patients were suffering from after anaesthesia. The patients were then observed at the same interval to find out the drug that was effective in the prevention of shivering (Khan, 2015).

A2. Analysis

The analysis was done using the chi-square statistical tool, and then the presentation was done using SPSS.

A3. Evaluation of the above four areas of the article supports the conclusion made by the study team. The conclusion is supported by other studies done in the literature review in which tramadol is more effective in controlling postneonatal shivering, as shown by the results obtained from the study.

A4. Patients who participated in this study were protected, and their health put into consideration by obtaining permission from the department and informed written consent from the patients

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who participated in the study.

A5. The strength of this study is that the reason that made researchers carry out this study was clearly stated. Their main purpose was to determine the most effect method of treating post neonatal shivering. On the other hand, the limitation of this study is that the features of the individuals in the study were not clearly stated by the researchers of this study.

A6. This article informs current nurses' practices where nurses use tramadol to control shivering, thus improving the quality of care provided by nurses in hospitals(Khan, 2015).

B1. Qualitative Article: A qualitative study of hospitalists' perceptions of patient satisfaction metrics on pain management.

Patient satisfaction helps the hospital in finding out whether they are providing quality services to their patients or not. Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey results was first reported by the centres for Medicare and Medicaid in the year 2008.

These HCAHPS scores are used by the federal government in calculating the incentives that they have to pay (Koester, 2017). The amount of incentives paid by the federal government is dependent on the HCAHP scores that the health care sector have.

Pain management is necessary for the hospitals since pain to the patient leads to depression and anxiety among in-patients. Therefore, there should include more effective instruments in the hospital that are aimed at controlling the pain that patients sometimes have to go through.

B2. Literature review

Aetiology of pain

Pain can be in 2 forms, which include chronic and acute pain. It also comes in different forms

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and severities. A person can feel pain when special nerves that identify a damaged tissue transmits signals containing information concerning the damage of the spinal cord that runs through the brain. The nerves that transmit the information are known as nociceptors. Once the nerves deliver the information in the brain, it's up to the brain to decide what to do with the information (Koester, 2017).

B2. Methodology

Study Design, Setting, Population and Recruitment

A qualitative study involving 25 hospitals was carried out with the help of open-ended questionnaires and in-depth interviews to complete the study. The people who participated in the study were recruits from five hospitals. The participants of the study were invited through email where only 53 hospitals out of 135 hospitals that were emailed allowed their nurses to be involved in the study. Simple random sampling was used to carry out the study since it allows even distribution of individuals based on gender and age. An interview was carried out for each participant to complete the study. Permission was obtained from the Colorado Multiple Institutional Review Board and informed written consent from the participant. This allowed the study to be completed effectively (Koester, 2017).

B2. Analysis

After completing the study, the results were entered into the software that is used for carrying out a qualitative analysis of data. Patterns and themes related to practices around pain management, opioid practising and patient satisfaction were then examined using a mixed deductive and inductive approach that is team-based. Predefined codes and categories that are based on literature, interview guide and prior knowledge were then linked using a deductive approach. An inductive approach was finally used to determine new codes and categories that were found from

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the data that constituted of unanticipated information relevant to the research questions that were used.

A prior template was used to perform initial coding, which included categorizing codes as the patient, institutional factors and physician. Other team members each coded his/her transcripts independently to obtain the same results about the codes that will be used to analyze the transcripts that were yet to be coded. During the research period, members of the team constantly met to modify the codebook to make ensure that they are always in consensus and also to identify other issues that may emerge. In case of any emerging issues, the team members met and reported the issues in the codebook (Koester, 2017).

B3. The analysis of the evidence provided in the above four areas is supported by the decision of researchers since hospitals need pain management metrics to protect their patients from the depression and the anxiety that they always go through. These metrics are very important in that they relieve patients from the pain that they always endure. This helps hospitals protect human life, thus improving the quality of care in a nation. This is evidenced in the review of literature carried by other studies.

B4. The participants of this study were protected since none of them was forced to take part in the study. Permission was also obtained from the board to ensure that every participant of the study is safeguarded from any injury that may occur in the process of the study.

B5. The quality of the study that was carried out is that the methods that were used in collecting data for the study were appropriate. Conversely, the limitation of this study is that the conflict of interest was not mentioned anywhere.

B6. Nurses in hospitals around the world are applying results found in this study to effectively manage the pain that patients go through while in the hospital. This helps in proving quality care

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to patients worldwide(Koester, 2017).

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References

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