



The Importance of Anesthesia in Pain Management and Patient Comfort and Assessment Patient Satisfaction

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Abstract:

Background Pain management is considered as a basic factor for patients during perioperative care to get perfect comfort and, ensure the satisfaction of patients, and enhance the clinical outcomes of surgery.

Objective This study aimed to investigate the role of pain management in relation to patient comfort and to evaluate patient satisfaction with clinical outcomes following surgery.

Patients and methods Our study was presented a complete analysis to assess patients who underwent of anaesthesia and its role in patient comfort and patients' satisfaction. This study was performed on 84 cases in both genders associated with women and men with ages range between 30-70 years. Our study was characterized to perform assess of patients' satisfaction about those who had undergone of anaesthesia in three types of surgeries: general surgery, orthopaedics, and urology. Also, the anaesthesia used are two consists of general and regional anaesthetics. Our data were collected from different hospitals in Iraq from 14th July 2022 to 8th August 2023, where this data was recovered and analysed by the SPSS program.

Results and Discussion Age is an important and affected aspect on patients who underwent anaesthesia. Where patients have ages over than 50 could be affected by postoperative pain, where the rate of males have been found higher 63.4% more than that of females 36.6%. In addition to that, the clinical outcomes were indicated postoperative pain management where patients who used non-steroidal anti-inflammatory drugs with 82.93%, while opioid analgesics were 10.98% and others 6.10%. In the baseline characteristics of pain management, postoperative pain was classified as a degree of pain; the patients have no pain enrolled 48.78%, and patients with mild pain was 24.39%,

while severe pain was 7.32%. In an aspect of the level of satisfaction, our clinical study was found the rate of patients who were strongly satisfied with the anesthesia used were 60.98% and strongly dissatisfied was 2.44%, where postoperative pain was 89% with less than 10 minutes while others have pain with higher than 10 minutes.

Conclusion Our study was showed that satisfaction level was considered an important side of medical care through anaesthesia affects in pain management where half of the patients have not pain; 61% of patients were strongly satisfied, and 22% of patients were satisfied.

Key words: Pain management, Anesthesia, quality of health care, and Patient satisfaction.

INTRODUCTION

It is widely accepted that adequate acute pain relief has a positive impact on recovery from various pathologies, especially surgical ones. This is reflected in a lower risk of complications associated with severe and prolonged pain (atelectasis, pneumonia, myocardial ischaemia, venous thrombosis, etc.), an earlier functional recovery, and probably a shorter hospital stay. There is some evidence of the potential benefit of good acute pain control in preventing the cornification of postoperative pain [1-5]. Postoperative pain is commonly underestimated and often undertreated. Many publications from many countries report that the incidence of moderate to severe postoperative pain is between 30% and 80% of patients, that there is a high need for additional doses of analgesia, and that there is a delay in the administration of these doses, resulting in a great deal of unnecessary suffering. [6-8]

There is a consensus that acute pain services or programmes need to be implemented to meet these needs, with practices based on recommendations and clinical guidelines supported by the best available evidence. The methods used are dependent on the type of surgery, involve a multimodal approach, and must be adapted to the needs of the individual patient. Some of these techniques are the use of patient-controlled pumps (PCA) for opioids and local anaesthetics, nerve blocks, epidural and perineural catheters, elastomeric pumps, intravenous infusion of non-opioid analgesics, and the use of adjuvants [9-13]. The aim of all these methods is to prevent and relieve acute pain as much as possible, diagnose and minimise adverse effects, reduce the risk of chronic pain, and improve patient satisfaction. The use of these techniques is not without risks, which, although rare, can be serious. Examples include opioid-induced respiratory depression, catheter complications (such as epidural haematoma), severe hypotension, neurological damage, etc. For this reason, these techniques require appropriate control, monitoring, follow-up, and multidisciplinary management, which is why an acute pain management programme is recommended. [14-15]

Quality of health care is defined as the ability of systems to achieve levels of improvement in response to legitimise the expectations of the population. Major complications associated with anaesthesia, such as death, acute myocardial infarction, or cerebral vascular stroke, are so rare (<1%) that they do not have sufficient sensitivity and specificity to be considered as quality indicators in anaesthesia. [16-18]

Questionnaires have been used in many studies to infer levels of patient satisfaction, as they provide an assessment of the non-technical component of health care. However, in most of these studies, the level of satisfaction tends to be very high (>85%), raising whether patients are really satisfied or whether other variables, such as a reluctance to criticise their caregivers or the relief of having gone through a risky situation without complications, may influence the response to the questionnaires [19-20].

Patients and methods

Our study was presented a complete analysis to assess patients who underwent anaesthesia and its role in patient comfort and patient satisfaction. This study was performed on 84 cases in both sexes associated with women and men with an age range between 30-70 years. Our study was characterized to perform an assessment of patient satisfaction about who underwent of anaesthesia in three types of surgeries involved of general surgery, orthopaedics, and urology. Also, the anaesthesia used are two consists of general and regional anaesthesia. Our data were collected from different hospitals in Iraq from 14th July 2022 to 8th August 2023, where these data were recovered and analysed by the SPSS program.

To follow up, this study was identified clinical and demographic outcomes that focused on characters of pain, pain degree, surgical time, types of surgery, anaesthesia used, factors that effect on pain after surgery, and level of satisfaction.

To build up the methodology's results, our study was enrolled the rate of patients with who have conducted three surgeries and pain was managed with surgical time, which was divided into (1-2), (3-4), and >5 in hours, where basic postoperative pain was managed non-steroidal anti-inflammatory drug, opioid analgesics, and others, the clinical results of which were classified into no pain, mild pain, moderate pain, and severe pain, and we determined factors that caused postoperative pain, which included getting out of bed, loss of analgesic effect, positioning, coughing, and dressing the incision site. We also used artificial intelligence to determine the expected time for pain management after surgery in minutes in relation to the actual or observed time. We assessed patient satisfaction in five areas: very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied.

Results

Table 1: Clinical demographic characteristics of patients based on age.

		Age
N	V	82
	Mi	0
Me		50.0000
SD		11.90497
Min		30.00
Max		70.00

Table 2: Clinical demographic characteristics of patients based on sex.

Gender	F	P (%)	VP (%)	CP (%)
Women	30	36.6	36.6	36.6
Men	52	63.4	63.4	100.0
T	82	100.0	100.0	

Table 3: Determine types of surgeries performed for 82 cases.

Surgery types	F	P (%)	VP (%)	CP (%)
<i>General surgery</i>	29	35.4	35.4	35.4
<i>Orthopaedics</i>	43	52.4	52.4	87.8
<i>Urology</i>	10	12.2	12.2	100.0
Total	82	100.0	100.0	

ANESTHESIA USED

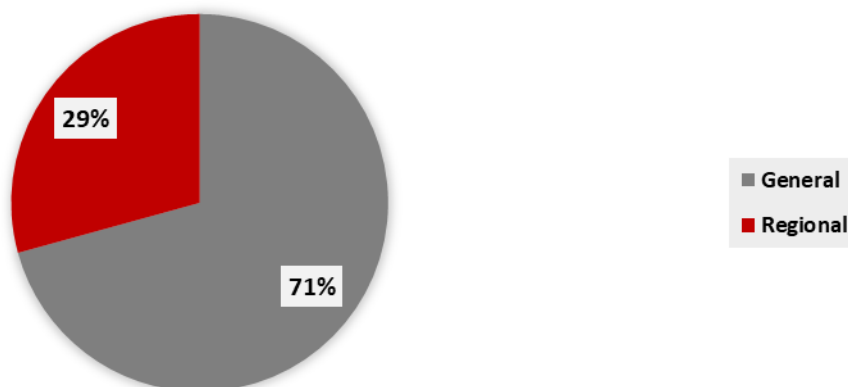


Figure 1: Identification of anaesthetics used during the patient's surgery.

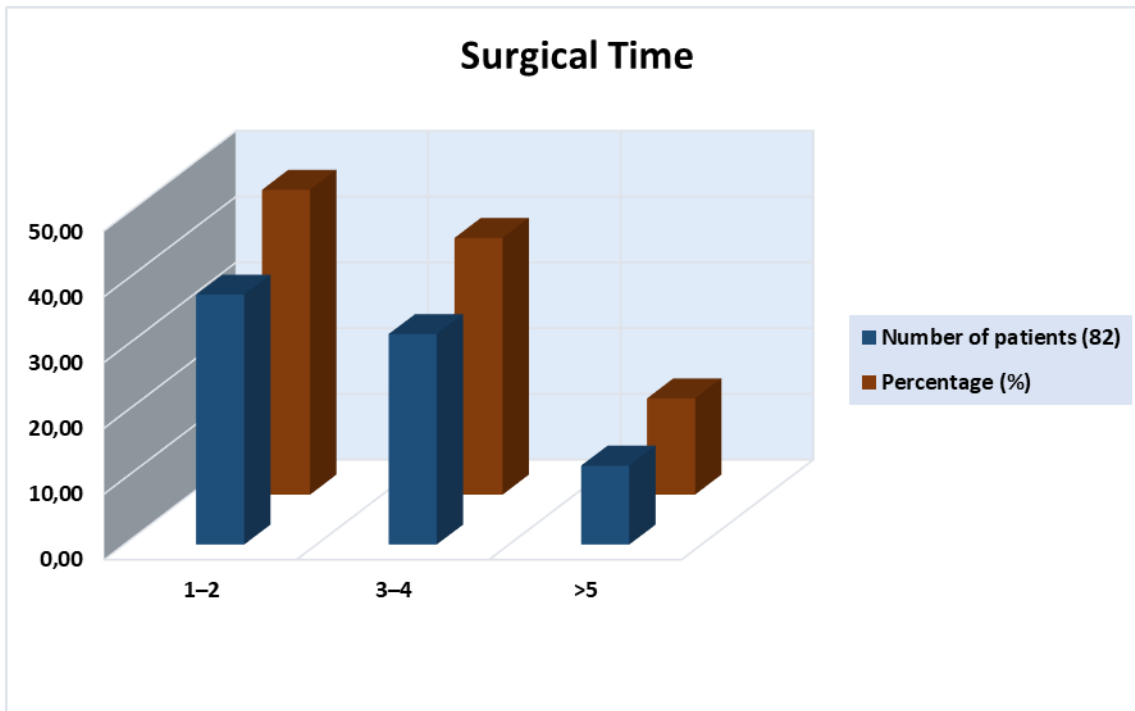


Figure 2: Determination of clinical outcomes of surgical time follow-up in 82 cases.

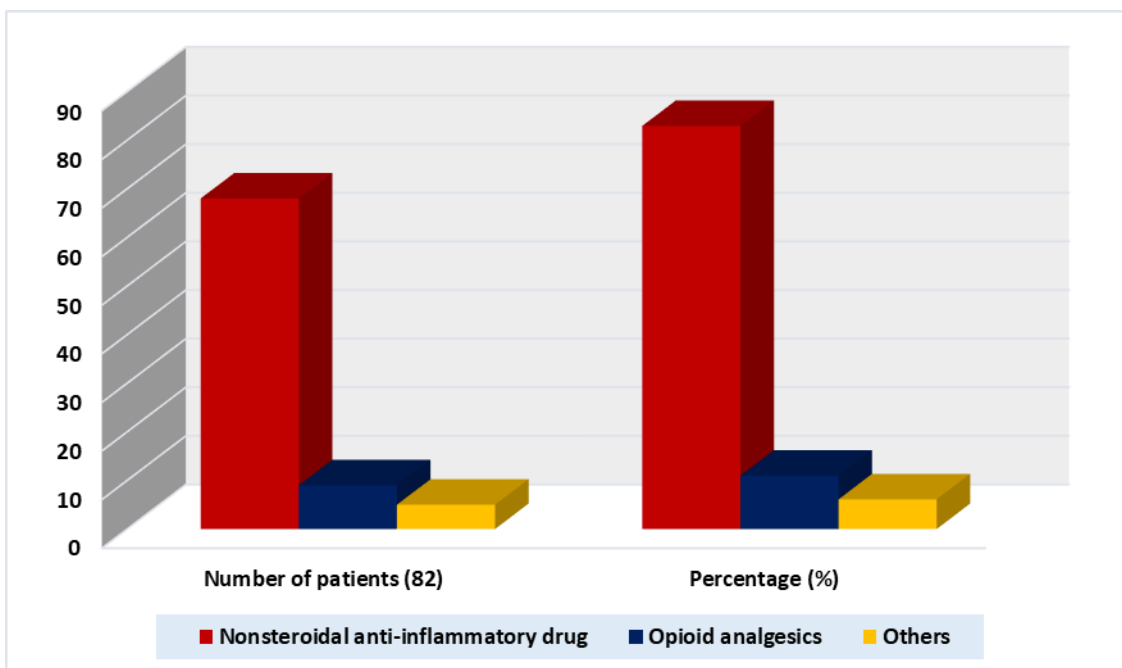


Figure 3: Identify basic postoperative pain management parameters.

Table 4: The baseline characteristics of patients involved, satisfaction, postoperative pain, and factors influencing pain management.

<i>Variables</i>	<i>Number of patients (82%)</i>	<i>Percentage (%)</i>
<i>Characteristics of pain</i>		
<i>Tingling</i>	40	48.78%
<i>Pulsating</i>	22	26.83%
<i>Pressing</i>	11	13.41%
<i>Pricking</i>	9	10.98%
<i>Factors caused post-operative pain.</i>		
<i>Getting out of the bed</i>	30	36.59%
<i>Loss of the effect of the painkiller</i>	14	17.07%
<i>Positioning</i>	9	10.98%
<i>Coughing</i>	25	30.49%
<i>Dressing of the incision site</i>	4	4.88%
<i>Post-operative pain</i>		
<i>No pain</i>	40	48.78%
<i>Mild pain</i>	20	24.39%
<i>Moderate pain</i>	16	19.51%
<i>Severe pain</i>	6	7.32%
<i>Level of satisfaction</i>		
<i>Strongly satisfied</i>	50	60.98%
<i>Satisfied</i>	18	21.95%
<i>Neutral</i>	8	9.76%
<i>Dissatisfied</i>	4	4.88%

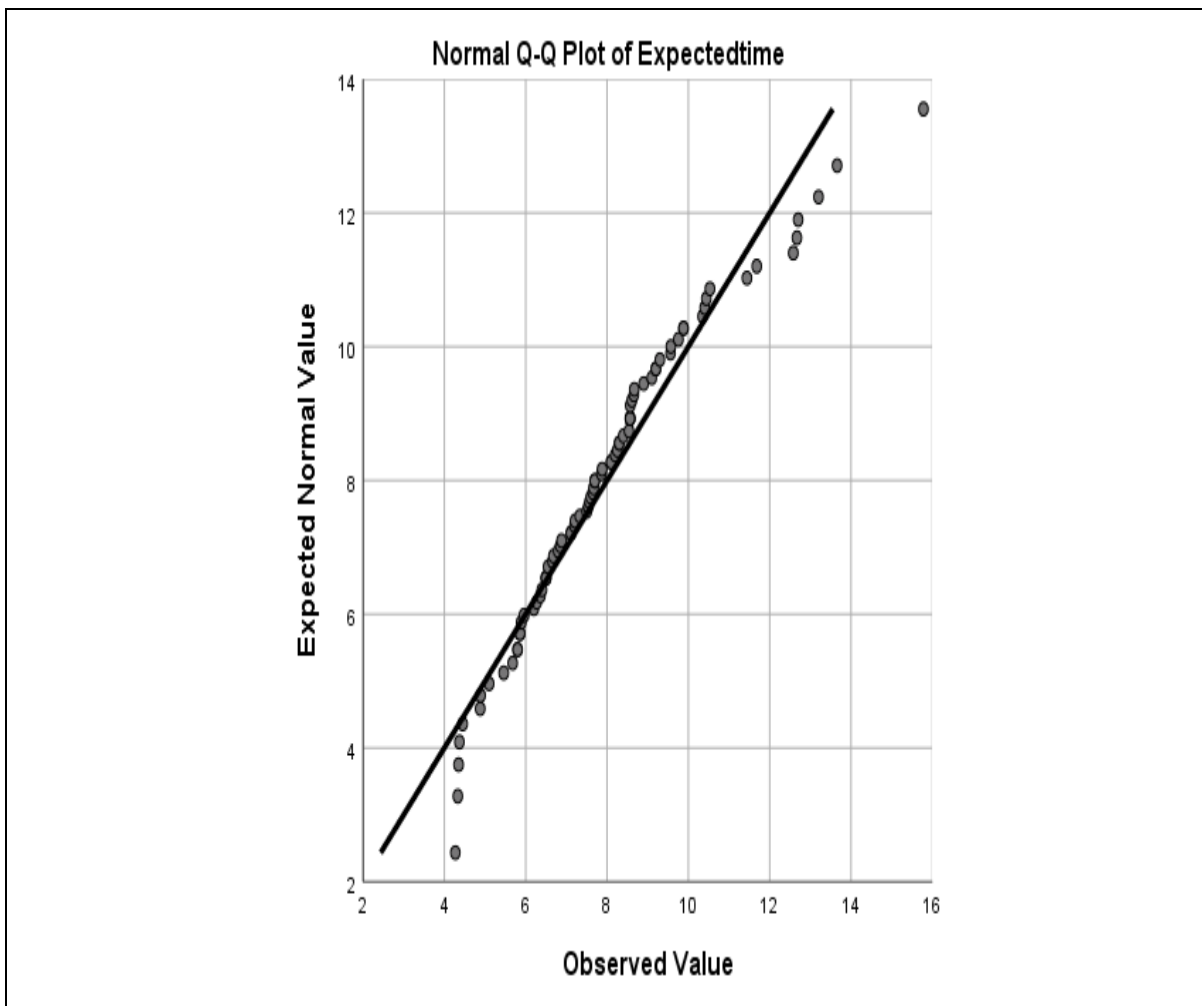


Figure 4: Assess predicted or expected time for pain management after surgery in minutes.

Discussion

Our study was interested to analyse anaesthesia impact on postoperative pain of patients who underwent surgeries and their satisfaction level assessment. Our study was shown clinical and demographic outcomes of patients who are over 30 years of age. Age is an important and affected aspect on patients who underwent anaesthesia. Where patients have ages over than 50 could be affected by postoperative pain, where the rate of males have been found higher 63.4% more than that of females 36.6%. This study was determined types of surgeries where the rate of patients with orthopaedic surgery 52.4%, while patients with general surgery were 35.4% and urology was 12.2%. Also, our clinical results found that patients had used general anaesthesia during surgery 71% but regional anaesthesia 29%, where almost of 46.34% of patients had surgery for 1-2 hours while 39.02% of patients have surgery for 3-4 hours.

In addition to that, the clinical outcomes were indicated postoperative pain management where patients who used non-steroidal anti-inflammatory drugs with 82.93%, while opioid analgesics were 10.98% and others 6.10%. In the baseline characteristics of pain management, our study was determined characteristics of pain; the highest one was found to be Tingling with 40 (48.78%), and

factors causing postoperative pain was identified as Getting out of bed factor, which increased from patients with 36.59%, where postoperative pain were classified degree of pain, the patients have no pain enrolled 48.78% and patients with mild pain was 24.39% while severe pain was 7.32%. In an aspect of the level of satisfaction, our clinical study was found that the rate of patients who were strongly satisfied with anesthesia used were 60.98% and strongly dissatisfied was 2.44%. Our study was assessed pain duration before and after surgery by classifying models where the expected time of patients who have postoperative pain was 89% with less than 10 minutes, while others have pain with higher than 10 minutes.

Following recent research studies, it has been demonstrated that patient satisfaction with anesthesia care constitutes a vital element of medical care. These studies suggest that measuring patient satisfaction with anesthesia can offer valuable insights into various facets of medical care, such as compassionate bedside manner, prompt response to patient needs, and shared involvement in decision-making. Inadequate communication and information, along with factors such as increased mortality rates and decreased patient satisfaction, can contribute to strong pre-surgery excitement in patients receiving anesthesia, as well as nausea, vomiting, pain, dizziness, general discomfort, and thirst. Poor management of pain after surgery can also decrease patient satisfaction [21-23]. Factors associated with anesthesia management before surgery and follow-up care after surgery can all affect patient satisfaction in this regard where, ensure that general anesthesia have less pain to compare with regional anesthesia in medical care and patients' satisfaction after surgery. [24]

Conclusion

This study has shown that patients have a high level of satisfaction about anaesthesia's role in pain management after surgery, where it was estimated that patients who did not have postoperative pain were half the rate of total cases. Also, our results found the expected time of pain management for 80% of patients were almost less than 10 minutes, and 20% of patients had managed their postoperative pain for 10-16 minutes. Our study was assessed the level of satisfaction at patients, which found 61% of patients were very satisfied and 22% of patients were satisfied, while 4.88% of patients were dissatisfied and 2.44% were very dissatisfied.

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