

Monitoring Postoperative Pain Management in General Surgical Wards: A Clinical Audit of Feedback Pain Protocol in Our Institution

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Abstract

“Pain” is defined by the International Association for the Study of Pain as an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage. There is both the physiologic and affective nature of the pain experience. Inadequate pain control, apart from being inhumane, may result in increased morbidity or mortality. Despite this overwhelming rationale for effective postoperative pain control, the clinical reality is unfortunately, still far from satisfactory. As the importance of postoperative pain relief is undebated, there is a need for an effective protocol in the care of all postoperative patients. In our hospital, we follow a “feedback” pain protocol, in which the VAS pain scale is used to record pain at least once a day, or more depending on the analgesia frequency, with a follow-up after 15 to 45 min to see the level of pain relief, and to receive drug orders for further analgesia if the pain relief is not adequate. The aim of this audit is to find the level of compliance to this protocol, and its effectiveness. The main reason being that there is no standard protocol for postoperative pain management widely being practiced. The surgeons are the ones who are managing the postoperative pain. This audit will determine the effectiveness, and the adherence to protocol, which will suggest whether there is a need for a change in the protocol,

or adherence. Objectives being to ensure that the analgesia protocol is followed in all postoperative patients and to ensure that at least 95% of those who receive the analgesia protocol, has a VAS score of less than 3 in their first two postoperative days.

Keywords: Postoperative pain; Pain protocol; Feedback protocol; Institution.

Introduction

“Pain” is defined by the International Association for the Study of Pain as an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage¹. Although this is a technical description of pain, it recognizes both the physiologic and affective nature of the pain experience. Inadequate pain control, apart from being inhumane, may result in increased morbidity or mortality. Acute pain following surgery, can activate the sympathetic branch of the autonomic nervous system and produce such responses as hypertension, tachycardia, diaphoresis, shallow respiration, restlessness, facial grimacing, guarding behavior, pallor, and pupil dilation. Although pain in response to tissue damage is a normal phenomenon, it may be associated with significant, unnecessary physical, psychological, and emotional distress. Inadequate relief of acute pain can contribute to hypercoagulability and impaired immunity, leading to such complications as venous thromboembolic disease and infections. Inadequately controlled acute pain can be a factor in the development of chronic pain,

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extended hospital stay, readmission, and patient dissatisfaction². Pain has been found to be one of the three most common medical causes of delayed discharge after ambulatory surgery, the other two being drowsiness and nausea/vomiting. The advantages of effective postoperative pain management include patient comfort and therefore satisfaction, earlier mobilization, fewer pulmonary and cardiac complications, a reduced risk of deep vein thrombosis, faster recovery with less likelihood of the development of neuropathic pain, and reduced cost of care. Despite this overwhelming rationale for effective postoperative pain control, the clinical reality is unfortunately, still far from satisfactory. As the importance of postoperative pain relief is undebated, this study can identify the need for an effective protocol in the care of all postoperative patients. In our hospital, we follow a pain protocol, in which the VAS pain scale is used to record pain at least once a day, or more depending on the analgesia frequency, with a follow-up after 15 to 45 min to see the level of pain relief, and to receive drug orders for further analgesia if the pain relief is not adequate. The aim of this audit is to find the level of compliance to this protocol, and its effectiveness i.e. whether there is adequate pain relief in, patients who receive this protocol. The main reason was that there is no standard protocol for postoperative pain management widely being practiced. The surgeons are the ones who are managing the postoperative pain. This audit will determine the effectiveness, and the adherence to the feedback protocol followed in our institution, which will suggest whether there is a need for a change in the protocol, or adherence. Objectives being to ensure that this analgesia protocol is followed in all postoperative patients and to ensure that at least 95% of those who receive the analgesia protocol, has a VAS score of less than 3 in their first two postoperative days. This 45 day prospective outcome audit was conducted in our institution from the month of 1st November 2017 to 15th December 2017. 161 general ward patients aged 18 to 90 years including all surgeries in their first two postoperative days were managed with the feedback pain protocol. As per this audit, 85% of the postoperative patients received analgesia as per analgesia protocol. 30% of patients in male and female surgical wards with a protocol followed had a visual analogue score of less than 3, at least in their first two postoperative days. This audit has determined the ineffectiveness, and a fair adherence to protocol, and as the importance

of postoperative pain relief is undebated, this study emphasises the need for a new effective protocol or modification of the feedback protocol followed in our institution to improve the care of all postoperative patients.

Materials and Methods

This study was an outcome audit, a prospective type of study, A sample size of 161, was calculated using Raosoft sample size calculator, the incidence of patients having adequate pain relief being 12%. A consecutive method of sampling was used. The study was conducted from the month of 1st November 2017 to 15th December 2017. The study population for the audit involved all postoperative patient admitted in male and female surgical wards in PSG hospitals, Coimbatore from the month of 1st November 2017 to 15th December 2017. All patients aged 18 to 90 years in their 1st and 2nd postoperative days, admitted in male and female General Surgery Wards were included,. Those who had drug contraindications, admitted in wards other than the General wards, whose 1st post op day management was in ICU, who were postoperative day 3 and above, and patients who belong to department other than the Dept. of General Surgery were excluded. Data collection method was by patient interview using the VAS scale. The patient was shown the VAS scale and asked to indicate the face (or in between 9 the faces) which he felt was the level of pain he was suffering from. The expected standard of this audit was that 99% of the postoperative patients received analgesia as per analgesia protocol with exceptions being any drug contraindications³, and the standard that 95% of patients in male and female surgical wards with a protocol followed should have a visual analogue score of less than 3, at least in their first two postoperative days^{4,5}. Data input (Fig. 1) and analysis was done using SPSS software.

Results

85% (137 out of 161 patients) of the postoperative patients received analgesia as per analgesia protocol (Fig. 2). 30% (41 out of 137 patients) of patients in with a protocol followed had a visual analogue score of less than 3, in their first two postoperative days. (Fig. 3).

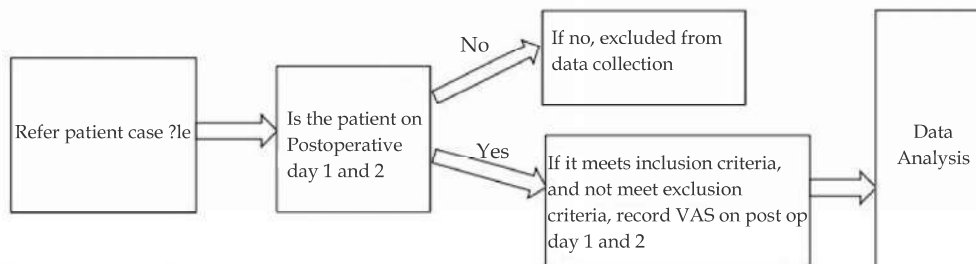


Fig. 1:

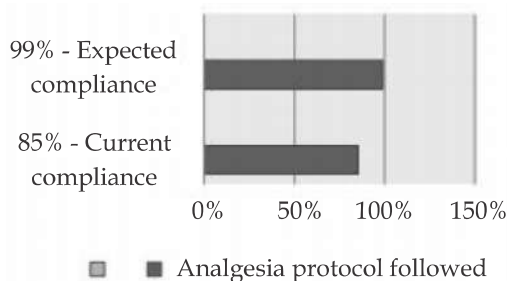


Fig. 2:

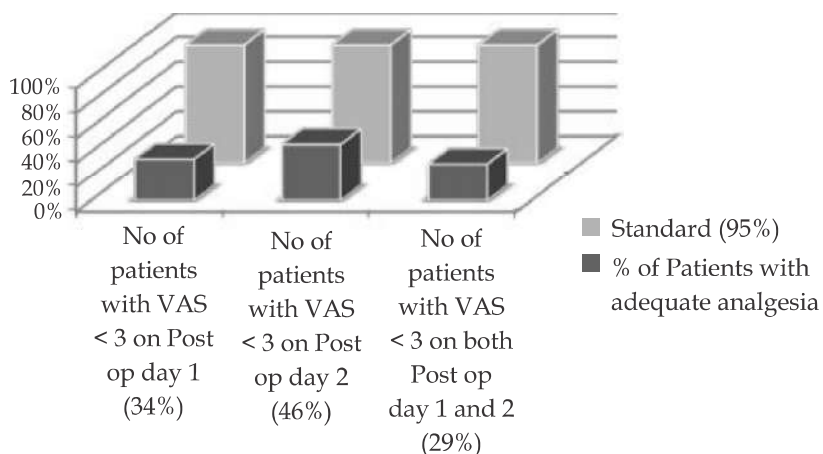


Fig. 3:

Discussion

Pain is a highly personal, subjective experience which can only be accurately described by the individual who is experiencing pain. Recognition and acceptance of the subjectivity of pain are among the most challenging aspects of patient care; concepts that have evolved since 1968 when Margo McCaffery first defined pain as "whatever the person experiencing says it is, existing whenever he says it does." Most patients who undergo surgical procedures experience acute postoperative pain, but evidence suggests that less than half report adequate postoperative pain relief⁶. Many preoperative, intraoperative, and postoperative interventions and management strategies are available for reducing and managing postoperative pain⁶. This pain protocol we have developed where the VAS pain scale is used

to record pain at least once a day, or more depending on the analgesia frequency, with a follow-up after 15 to 45 min to see the level of pain relief, and to receive further analgesia if the pain relief is not adequate. This protocol as observed by this audit was not satisfactory in relieving the postoperative pain. The main constraint noted was that the component of 'individual pain tolerance' produces variable level of pain relief in different patients even when the same drug is used. We suggest modifying this protocol, implementing an individual pain protocol to make this feedback pain protocol more effective.

Conclusion

In conclusion, there were significant number (~70%) of patients who were not benefited from this feedback analgesia protocol. Evidence STILL

suggests that even with the protocol, less than half report adequate postoperative pain relief. Despite overwhelming rationale for effective postoperative pain control, the clinical reality is unfortunately, still far from satisfactory. This audit has determined the ineffectiveness, Though a fair adherence to protocol. As the importance of postoperative pain relief can not be underestimated, this study emphasises the need for a NEW effective analgesia protocol in the care of all postoperative patients.

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