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Original article

Significance of Pain Estimation and Management in Post Operative Patients

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ABSTRACT:
Introduction: Pain is personalized in kind. It can show various ways by the patient (or) Individuals. It can be expressed into acute pain and chronic pain .It shows impact on socio economic status of the patients. Bad pain treatment is likely to effect until pain treatment practices became consistent with guidelines framed from the best available scientific evidence. In case of rational pain treatment needs pain estimation. So pain estimation plays a major role in rationalize pain treatment. Method: This study was expected monitoring multi center study. Results: The study was organized from April 2021 to March 2022 in different hospitals in and around Guntur district. A total of 1338 patients were involved in the present study out of 707 were males and remaining were females. At the 4-h VAS calculated that, the moderate pain was found to be 39.39 % of total population and severe pain as 19.89%. The study reports were monitored and continued for 24 hours. Only 5.5% of patients were taking strong opioids during the first 24 h as post-surgery analgesics.
Conclusion: Pain estimation plays a major role in the treatment of chronic and acute pain. If estimation was done we can get the better pharmaceutical care and improved socio-economic status of the people.

Keywords: Diabetes, *Vernonia amydalina, Moringa oleifera,* alloxan-induced, co-administration, Nutrition

1. INTRODUCTION

Surgery is an skill and science of treating disorders, injuries, and abnormalities by incision or manipulation especially with instruments. The surgical procedure involves the interchange of the patient, the surgeon and the nurse [1]. Surgery has turned into a crucial part of worldwide social insurance, with an expected 234 million operations performed yearly [2].

GI surgery is the most common operative procedure including a wide range of both emergency and elective surgical interventions [3]. The overall rate of operations on the abdomen is estimated as 43.8% among those who are above the age of 604. It has been evaluvate that the number of GI operations is expected to change significantly from around 7,436,000 operations in 2010 to 8,109,000 surgeries in 20205. Abdominal surgery shows gastrointestinal, biliary and liver operations, splenectomy, herniorrhaphy, appendectomy and operation on great vessels of trunk 6.The rate of appendectomy is found to be 10 per 10,000 cases per year in the US [7].

Approximately five million Americans suffer from hernias every year [8] and 75% of all hernias occur in the inguinal region. Men are more likely, up to 25 times more, to experience an inguinal hernia than women9. More than 20 million hernias are rated to be repaired every year around the world [10] The occurrence of hypercholestremia differes and has been reported as 2-29% in India, and elevated in the recent years [12].

The concept of hospital admission and anticipation of surgery is considered as a powerful anxiety-provoking stimulus [13] resulting in behavioural and cognitive consequences which can have adverse effects on recovery14. Surgery results in high level of anxiety to each patient regardless of minor or significant operation. It is said that an operation is an existence undermining occurrence for everybody. Regardless of earlier data to the patients that they will be dealt with by an operation, it can be hard not to stress over the looming surgical treatment [15].

The presence of anxiety is prevalent in preoperative patients. This anxiety is the outcome of uncertainty about the upcoming procedure, by past experience of anaesthesia and operation, and by advice of family members and friends, and fellow patients [16]. Anxiety is an inner characterised by personalized state of inner turmoil, often accompanied by subjective feelings of tension, worry, apprehension and elevation and discharge of the autonomic nervous system. Anxiety is a reaction to stress that has both psychological and physical features. The psycho-physiological stress

response is characterized by increased heart rate, rise in blood pressure and cardiac output and it results from elevation of the hypothalamic, pituitary, adrenal axis and the sympathetic nervous system [17].

Pain is an personalized sensory and emotional experience that is combined with actual/potential tissue damage on described in terms of such damage [18, 19].

. Pain can be classified in to 2 types like Acute and Chronic. Pain estimation scales plays a major role in the treatment of post operative patients.

The different type's scales are as follows [20]

a) Facial scale
b) Numerical rating scale
c) FLACC scale
d) CRISE scale
e) COMFORT scale
f) Mc Gill Pain scale
g) Color Anlog scale
h) Mankoski pain scale
i) Brief pain Inventory
j) Visual Analog scale

The estimation of pain should include the following [21, 22]:

- Significant previous and/or ongoing instances of pain and its effect on the patient
- Previously used methods for pain control that the patient has found either helpful or unhelpful

2. MATERIAL AND METHODS

Study design:

The clinical study was performed at various hospitals of the Guntur district, Andhra Pradesh, India from April 2018 to Mar 2022. We recorded all the patients who went the various surgery. Laboratory data were collected.

Objectives:

Our main goal is to estimate the pain and treatment in the patients who has went the post surgery.

Study method:

This study was prospective observational poly center study. Patient data were gathered from patient case sheet and required data is entered in data collection forms. The data was differentiated based on demographic details. Pain assessment was done by using Visual Analogue scale (VAS).

Inclusion Criteria:

- Patients age >18 Years
- who are ready to involve in study

Exclusion criteria:

- Patients age <18 years
- Patients undergone treatment under ICU
- Who are not ready to participate in the study

Statistics: The analysis of data was done by using SPSS software

3. RESULTS AND DISCUSSION

Total numbers of 1338 peoples were present in the study. On that 707 were males and 631 were females. The gender variation of patients enrolled for the study was shown in Table No 1& Figure No 1.

Table 1: Gender Distribution

	Number	Percentage
Women	631	47.2
Men	707	52.8
Total	1338	

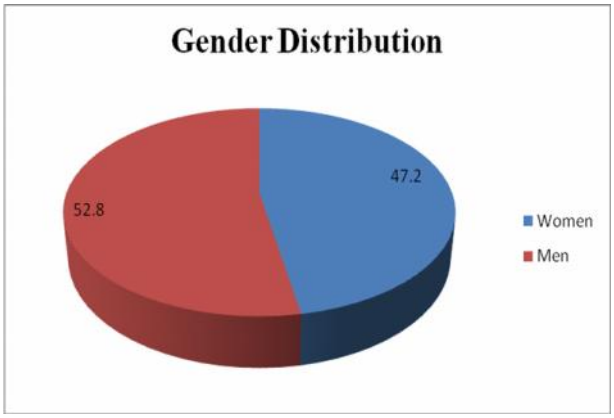

Fig 1: Gender Distribution

During the study period, the data was gathered from the various hospitals in and around Guntur District, Andhra Pradesh, India. The type of surgeries and the number of patients and the percentage of surgeries was summarized in the Table 2 and the same was presented as Figure 2.

Table 2: Number of Patients undergone the various kind of surgeries

Type of Ward	No. of patients	%
Thoracic surgery	220	16.44
Gynecology	265	19.80
Orthopedics	330	24.66
Laryngology	50	3.73
Neurosurgery	60	4.48
Urology	58	4.33
Obstetrics	65	4.85
General Surgery	256	19.13
Vascular Surgery	34	2.54

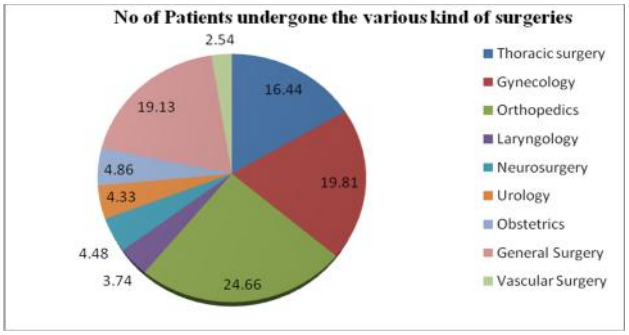

Fig 2: distribution of Patients as per kind of surgery

From the data we came to know that orthopedic surgeries occupy major share (330 out of 1338) and vascular surgery was found to be limited occupancy (34 out of 1338) in the list.

The pain severity was analyzed after surgery as per VAS up to 24 hours with as per the following pre-fixed schedule of 4, 8, 12, 24 hours. The results for pain intensity were shown in Table 3 and the same was represented graphically as Figure 3. The results were explained on the basis of VAS after surgery for Moderate and Severe pain.

Table 3: Patient pain intensity expressed by using VAS after surgery

VAS (h)	Mean	Moderate Pain		Severe Pain	
		Number	%	Number	%
4	34.07	527	39.39	265	19.81
8	32.06	444	33.18	192	14.35
12	27.05	320	23.92	161	12.03
24	25.04	277	20.70	113	8.45

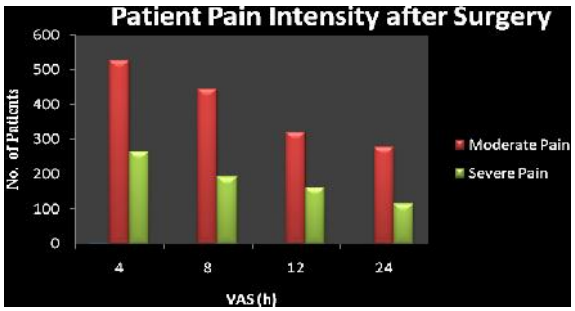

Fig 3: Patient Pain intensity as per VAS

The patients received various analgesics after surgery based on the need and Rationality. Some people were not received any kind of analgesics for postoperative pain conditions. The details of analgesics used for postoperative pain was enlisted as Table 4. And the same was presented graphically as Figure 4.

Table 4: Analgesics used in postoperative pain

Name of the Drug	Number
No Analgesic	90
Aspirin	5
Bupivacaine+ Fentanyl	81
Diclofenac	93
Gabapentin	5
Ibuprofen	5
Ketoprofen	475
Lignocaine	10
Mefenamic Acid	3
Metamizol	832
Morphine	69
Nalbuphine	5
Paracetamol	428
Tramadol	452

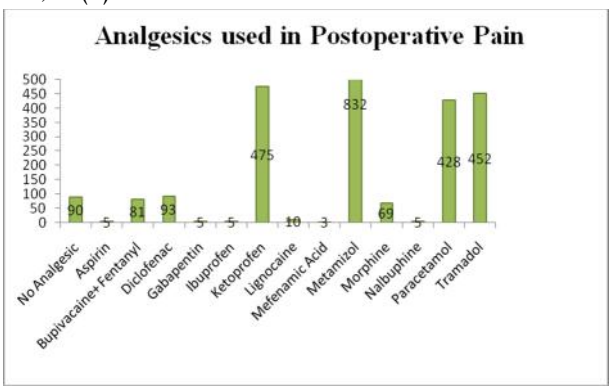

Fig 4: Distribution of Analgesics used in postoperative pain

Summary

This study was under taken to assess pain and pain relief in post-operative patients. The review of related literature helped the investigator to get a clear concept about the topic, methodology of the study, tool preparation and plan of analysis. Using Wong Bakers Faces pain rating scale and selected questions to assess pain intensity, location, nature, aggravating factors and alleviating factors were assessed. The effectiveness of pain medications also was assessed. The assessment was done on the first, second and the third post operative day about the pain experience and the effectiveness of pain management.

The study was conducted in the various departments GBR hospitals in the period of April 2018 to March2022. The data obtained from the study were analyzed by using descriptive and inferential statistics. Both bar and pie diagram were utilized to illustrate the findings of the study.

4. CONCLUSION

From the results of current investigation, reveals that more patients effecting the moderate or higher pain in the post-surgery conditions, even though there were standard treatment guidelines for effective against postoperative pain. Analgesics may be failure to show effectiveness in some population. The current study concludes the type of department, occupation, and genetics may show impact on severity of pain.

The results obtained in our study are in inconsistency with recommendations presented by the national guidelines for post-operative pain treatment.

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