



**ASSESSMENT OF EFFICACY AND OUTCOME DETERMINATION OF
ORTHOFFENAC AND VOREN (DICLOFENAC SODIUM) IN POST OPERATIVE
PATIENTS IN SANDEMAN PROVINCIAL HOSPITAL QUETTA, PAKISTAN**

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ABSTRACT

to determine the prevalence of pain in patients admitted to various inpatient wards of Sandeman Provincial Hospital Quetta; characterize and measure pain at the time of evaluation, and analyze the pharmacological analgesic measures adopted for these patients and their comparison

It was descriptive cross-sectional study conducted to assess comparison of drugs brand in pain management. The study was conducted in main tertiary care hospital of Balochistan; i.e. Sandeman Provincial Hospital Quetta. A total of 300 participants were selected on which two different drugs have been tested to assess which one is better pain management drug. The present study included 300 post-operative patients of both gender. Of which 150 was given Voren and 150 was given Orthofenac to compare the management of pain. The patients kept blind about which brand is been given to them. Study was conducted during May 2016 to August 2016. All data were analyzed in SPSS v 20.

Majority of respondents 26.3% were from age 12-21 years. Most of respondents 54.3% were male. 36.0% respondents were diagnosed with GIT problems. Of total 300 respondents 138 said that their pain was relieved and 145 said that Diclofenac Na is helping in easing their

pain. Brands Comparisons with respect to therapeutic activity and satisfaction in patients. It is shown that Voren has maximum therapeutic activity and patients were maximally relieved with Voren 146 (97.33%) as compared to Orthofenac 121 (80.66%).

Study concluded that most of the Respondents were felt relieved with Voren, however they actually do not know which brand Is given to them. Post-operative pain management is necessary to improve patient health and quality of life. It can be seen in results that nearly all patients were not fully relieved from pain.

Keywords: Orthofenac, Voren (Diclofenac Sodium), Sandeman Provincial Hospital, Quetta, Pakistan

INTRODUCTION

The International Association of Study of Pain has well-defined "pain as an disagreeable sensory and emotional understanding related with actual or potential tissue injury, or designated in terms of such damage" [1]. Pain is understood as a multidimensional vision, which comprises tissue injury and emotional, social, cultural, and environmental issues, a definition that is reliable with the idea of pain expressed by the International Association for the Study of Pain (IASP). Pain is always subjective and each individual learns, feels, and uses this term from their previous experiences [2].

Pain is an unpleasant feeling or sensible feeling that's stimulus is given by pain receptors and that is produced in the brain, such as the skin. Pain has a protecting role that frequently inhibits reflex action [3]. Various ways are there to classify the pain. Either isolation of pain into acute and

chronic. Acute pain naturally results unpredictably and has a partial period. It's often resulting from giving harm to tissues for example the muscles, bones or other organs, its duration regularly goes with anxiety or emotional disturbance. The chronic pain has longer onset when compared to acute pain.

Postoperative pain management starts well before the surgery commences by assessing the patient preoperatively and giving pre-operative analgesia. Adequate pain control measures are taken during surgery and are continued in the early and late postoperative period. As pain is a very subjective feeling, the analgesic and the techniques used for analgesia delivery are customized and tailored for every patient. A study stated that "under-treatment of pain is deprived therapeutic practice that outcomes in numerous opposing effects and is an retraction of a fundamental human right." [4]. The provision of medical care

that lessen span. Minor to temperate pain can be cured generally with analgesics, like aspirin. For the treatment of chronic or harsh pain, Narcotics (opiates) are used, sometimes steroids, analgesics or NSAIDs (non-steroidal anti-inflammatory drugs) are used or along with the antidepressants, which may start some pain medications without raising the actual dose of the drug that has effects on the sensitivity of pain of the brain. The narcotics have potential side effects and also cause addiction. Nevertheless, the danger of being addicted is not normally a worry in the cure of the patients. For patients hospitalized with a lot of pain, approaches for the self-administration of narcotics are regularly used by patients. Other ways can also be valuable in the management of pain. For the bed rested patients changing position frequently or by using pillows to provision a relaxed approach can be effective [5].

Most patients undergoing surgical procedures experience acute postoperative pain, but it indicates that less than half report adequate postoperative pain relief. Many preoperative, intraoperative and postoperative interventions and management strategies are available to reduce and control postoperative pain. In order to know the in-hospital pain management, this study designed with the following objectives: to determine the

prevalence of pain in patients admitted to various inpatient wards of Sandeman Provincial Hospital Quetta; characterize and measure pain at the time of evaluation, and analyze the pharmacological analgesic measures adopted for these patients and their comparison [6].

METHODOLOGY

Study design, site and participants

The main purpose of this descriptive study was to assess comparison of drugs brand in pain management. It was descriptive cross-sectional study conducted to assess comparison of drugs brand in pain management. The study was conducted in main tertiary care hospital of Balochistan; i.e. Sandeman Provincial Hospital Quetta. The study participants were hospitalized patients admitted in following departments; Male and Female Surgical Units, General Operation theaters, Emergency Operation Theater, Gynecology Department Urology Department and Orthopedic Surgery in civil hospital Quetta. The total of 300 participants was selected on which two different drugs have been tested to assess which one is better pain management drug. Study was conducted during May 2016 August 2016

STUDY TOOL/INSTRUMENT

The data was collected through the self-administered questionnaire to hospitalized patients. All questions were on ten-scale

and prepared in English language. The questionnaire comprised of Demographics and intervals of six doses to be administered and their outcomes.

STUDY SAMPLE, CRITERIA AND TECHNIQUE

The total of 300 participants was selected on which two different drugs have been tested to assess which one is better pain management drug. The present study included 300 post-operative patients of both gender. Of which 150 was given Voren and 150 was given Orthofenac to compare the management of pain. The patients kept blind about which brand is been given to them that is why result was made on Generic name as patients were unaware of brands.

Inclusion criteria:

- (1) Who consented to participate in the study.
- (2) Undergoes surgery
- (3) Receiving pain killers for pain management
- (5): Both Gender

Exclusion criteria

- (1) Age <12years
- (2) Refused participation

RESULTS

Demographics

Majority of respondents 26.3% were from age 12-21 years. Most of respondents 54.3% were male. 36.0% respondents were

diagnosed with GIT problems. And all respondents were given same number of drugs as shown in table 1.

Response of patients receiving doses of Diclofenac Na from 1 min to 2 Hr on various dosing

The responses are tabulated in table no. 2. On administering 1st dose, Maximum respondents 61.0% and 54.7% had no relief in 1-30 minutes and 31-59 minutes respectively. However, 67.7% and 79.0% got minor relief after 1.00 HR- 1.30 HR and 1.31 – 2 HR respectively. On administering 2nd dose, Maximum respondents 72.7% and 70.0% had minor relief in 1-30 minutes and 31-59 minutes respectively. However, 32.3% and 35.7% got mild relief after 1.00 HR- 1.30 HR and 1.31 – 2 HR respectively. On administering 3rd dose Maximum respondents 65.0% and 71.7% had mild relief in 1-30 minutes and 31-59 minutes respectively. However, 9.0% and 11.7% got moderate relief after 1.00 HR- 1.30 HR and 1.31 – 2 HR respectively. On administering 4th dose Maximum respondents 60.0% and 57.3% had mild relief in 1-30 minutes and 31-59 minutes respectively. However, 45.0% and 50.3% got moderate relief after 1.00 HR- 1.30 HR and 1.31 – 2 HR respectively. On administering 5th dose, Maximum respondents 58.7% and 59.3% had moderate relief in 1-30 minutes and 31-59

minutes respectively. However, 20.3% and 22.3% got much relief after 1.00 HR- 1.30 HR and 1.31 – 2 HR respectively. On administering 6th dose, Maximum respondents 47.7% and 46.0% had moderate relief in 1-30 minutes and 31-59 minutes respectively. However, 39.7% and 41.7% got much relief after 1.00 HR- 1.30 HR and 1.31 – 2 HR respectively.

Outcomes comparison of drugs

The respondents were asked two further questions, recorded as outcome one and outcome 2. Which is shown in table no 3. Does pain relief and Does Diclofenac Na

help with easing the pain. Respondents were not given generic name, and they kept blind which brand was injected to theme. Of total 300 respondents 138 said that their pain was relieved and 145 said that Diclofenac Na is helping in easing their pain.

Pain Relief after receiving 1st dose

Table No. 4 showed Pain Relief after receiving 1st dose in patients. It is shown that Voren has maximum therapeutic activity and patients were maximum relieved with Voren 146 (97.33%) as compared to Orthofenac 121 (80.66%).

Table No. 1 Demographics

Description	Frequency	Percentage
Age Group		
12 - 21 years	79	26.3
22 - 31 years	73	24.3
32 - 41 years	77	25.7
42 - 51 years	49	16.3
52 - 61 years	20	6.7
62 - 71 years	2	.7
Gender		
Male	163	54.3
Female	137	45.7
Diagnosis		
Dermatology	29	9.7
ENT	99	33.0
GIT	108	36.0
Nephrology	2	.7
Orthopedic	14	4.7
Others	10	3.3
polypectomy	1	.3
Caesarian	9	3.0
Urology	28	9.3
DrugsUsed		
Orthofenac	150	50.0
Voren	150	50.0

Table No. 2: Response of patients receiving doses of Diclofenac Na from 1 min to 2 Hr on various dosing

Time Intervals of Doses administered	1st Dose	2nd Dose	3rd Dose	4th Dose	5th Dose	6th Dose
	N (%)					
1-30 minutes						
No relief	183 (61.0%)	15 (5.0%)	---	---	---	---
minor relief	117 (39.0%)	218 (72.7%)	82 (27.3%)	8 (2.7%)	---	---
mild relief	---	67 (22.3%)	195 (65.0%)	180 (8.0%)	1 (0.3%)	21 (7.0%)
moderate relief	---	---	23 (7.7%)	110 (36.7%)	71 (23.7%)	143 (47.7%)
much relief	---	---	---	2 (0.7%)	176 (58.7%)	115 (38.3%)
too much relief	---	---	---	---	52 (17.3%)	21 (7.0%)
fully relief	---	---	---	---	---	---
31 – 59 min						
No relief	164 (54.7%)	8 (2.7%)	---	---	---	---
minor relief	136 (45.3%)	210 (70.0%)	61 (20.3%)	4 (1.3%)	---	---
mild relief	---	82 (27.3%)	215 (71.7%)	172 (57.3%)	63 (21%)	19 (6.3%)
moderate relief	---	---	24 (8.0%)	121 (40.3%)	178 (59.3%)	138 (46.0%)
much relief	---	---	---	3 (1.0%)	59 (19.7%)	120 (40.0%)
too much relief	---	---	---	---	---	23 (7.7%)
fully relief	---	---	---	---	---	---
1 hr- 1.30 hr						
No relief	97 (32.3%)	3 (1.0%)	---	---	---	---
minor relief	203 (67.7%)	200 (66.7%)	42 (14.0%)	3 (1.0%)	---	---
mild relief	---	97 (32.3%)	231 (77.0%)	159 (53.0%)	55 (18.3%)	18 (6.0%)
moderate relief	---	---	27 (9.0%)	135 (45.0%)	184 (61.3%)	140 (46.7%)
much relief	---	---	---	3 (1.0%)	61 (20.3%)	119 (39.7%)
too much relief	---	---	---	---	---	23 (7.7%)
fully relief	---	---	---	---	---	---
1.31 – 2 hr						
No relief	61 (20.3%)	---	---	---	---	---
minor relief	237 (79.0%)	192 (64.0%)	38 (12.7%)	3 (1.0%)	---	---
mild relief	2 (0.7%)	107 (35.7%)	227 (75.7%)	141 (47.0%)	46 (15.3%)	17 (5.7%)
moderate relief	---	1 (0.3%)	35 (11.7%)	151 (50.3%)	187 (62.3%)	133 (44.3%)
much relief	---	---	---	5 (1.7%)	67 (22.3%)	125 (41.7%)
too much relief	---	---	---	---	---	25 (8.3%)
fully relief	---	---	---	---	---	---

Table No. 3: Outcomes comparison of drugs

Outcomes	ORTHOFENAC (N)	VOREN (N)
Outcome 1 (Does pain relief?)		
Yes	131	138
No	19	12
Outcome 2(Does Diclofenac Na help with easing the pain?)		
Yes	136	145
No	14	5

Table No. 4: Pain Relief after receiving 1st dose

Pain Relief after receiving 1 st dose?	ORTHOFENAC (N)	VOREN (N)
Yes	121 (80.66%)	146 (97.33%)
No	29 (19.33%)	04 (2.66%)

DISCUSSION

Pain is the most important factor in any pathology due to which patient seeks medical attention. Despite advances in medical care delivery, pain management still remains a big challenge. With regard to the postoperative pain, if it is not controlled, one of the main objectives of the treatment is lost [2]. Studying the prevalence of pain is an important indicator of quality care. Recent literature data has shown that over 50% of hospitalized patients complained of moderate to severe pain in the previous 24 hours, regardless of cause (surgical, neoplastic, traumatic, other) [7, 8].

The concept of analgesic ladder was first introduced by World Health Organization (WHO) in 1986 to manage cancer pain.¹⁶ It was based upon recommendation from leading experts in pain management. While it is quite a simple and safe system to follow, it was found to be not very suitable to manage pain in acute postoperative setting.

In our study, patients were not completely pain-free within the first 24 hours following surgery. Which is in contrary to study conducted where they have 5% recovery of patients in Peshawar postoperative patients [9]. This figure changed to up to 40% when recorded the response of patients after surgery that they are likely to get moderate

and much relief after receiving drug which is consistent with a study showed that as many as 106(49%) adult postoperative patients scored at least 4 or more, when interviewed using 11-point NPS.¹² A meta-analysis of published data on effectiveness of postoperative pain management showed that the overall mean incidence of moderate-to-severe pain and of severe pain was 29.7% (26.4-33.0) and 10.9% (8.4-13.4), respectively[10]. The study also highlighted that drugs selection provide fair pain relief and no participant objected or given response of "No Pain Relief" after any subsequent dose administration regardless of time and frequency.

Another aspect seen in this study is that assessed by inpatient wards it is possible to observe that the prevalence was 35.7% is happened in post-operative patients diagnosed or admitted in GIT problem or diseases this is in contrast to study, where assessed by inpatient wards it is possible to observe that the prevalence was 47% in the Surgical Clinic and 42.7% in Gynecology/Obstetrics, a high rate in units related to surgical procedures [2].

CONCLUSION

Study concluded that most of the Respondents were felt relieved with Voren, however they actually do not know which brand is given to them. Post-operative pain management is necessary to improve

patient health and quality of life. It can be seen in results that nearly all patients were not fully relieved from pain which is alarming situation. Further studies should be conducted to evaluate reasons for not relieving pain.

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