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Assessment of Patient Satisfaction with Regional Anaesthesia and General Anaesthesia in Urinary Bladder Surgeries

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Abstract

Background: To assess patient satisfaction with regional anaesthesia and general anaesthesia in urinary bladder surgeries. **Methods**: Fifty- six patients scheduled for urinary bladder surgeries were equally divided into 2 groups. Group I (28) patients received GA and group II (28) received RA. Parameters such as patients satisfaction score, duration of surgery and pain score at 12 hours, 24 hours and 36 hours was compared. **Results:** There were 15 males and 13 females in group 1 and 14 males and females in group 2. ASA grade 1 was seen in 18 in group 1 and 20 in group 2, grade 2 in 10 in group 1 and 8 in group 2. There was kindness score of 7.2 and 8.6 in group 1 and group 2, information score of 8.9 and 9.5 in group 1 and group 2, feeling of safety score of 7.0 and 8.7 in group 1 and group 2, demands met score of 6.9 and 8.2 in group 1 and group 2, anxious score of 1.9 and 1.1 in group 1 and group 2, attention given score of 6.2 and 8.5 in group 1 and group 2, pain score (VAS) of 4.7 and 2.3 in group 1 and group 2, relaxed feeling score of 6.8 and 8.9 in group 1 and group 2, nausea score of 1.9 and 1.2 in group 1 and group 2 and wellbeing score of 6.3 and 8.4 in group 1 and group 2 respectively. A significant difference was observed ($P< 0.05$). **Conclusion:** There was better patient satisfaction, longer duration of analgesia and lesser duration of hospital stay with RA than GA.

Keywords:- Patients satisfaction score, regional anaesthesia, general anaesthesia, Urinary bladder surgeries.

INTRODUCTION

Assessment of patient satisfaction after anaesthesia is an important parameter, not only as an assessment tool for quality control but also for further improving standards of hospital care.[1,2] Patient satisfaction in healthcare industry is approached as a multidimensional construct, one which balances the outcome to expectations.[3] It includes factors such as ease of the anaesthetic procedure, adverse effects of anesthetic agents, emotional and interpersonal factors.[4] Pascoe defined patient satisfaction as the patient's reaction consisting of a "cognitive evaluation" and "emotional response" to the care they receive.[5] Many of the sociodemographic factors, cultural influences, and cognition of

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the patients are also known to influence patient satisfaction.[6]

Patient satisfaction is an important subjective measure of healthcare quality which contributes to evaluation of the structure, process and outcome of services.[7] Many factors contribute to patient satisfaction, including institutional structure, interpersonal relationships, and a patient' expectations. Age, gender, social insurance, educational and social statue also play role in patient satisfaction.[8] The key factor in patient satisfaction is adequate perioperative information of the patient and communication between healthcare providers and patient or patient's kin.[9]

One-dimensional tools have been used to measure patient satisfaction (Numerical scale, visual analogue scale and Likert-type categorical scales), that in general give overall information about the health care provided, unless they are specifically targeted to a particular factor.[10] The multidimensional surveys are difficult to develop but provide more specific and reliable information because of the large number of variables evaluated.[11] At a large scale, questionnaires such as QoR (Quality of Recovery Score) and the extended QoR–40 version have been used in countries like Australia.[12] Considering this, the present study was attempted with the aim to assess patient satisfaction with regional anaesthesia and general anaesthesia in urinary bladder surgeries.

MATERIAL AND METHODS

This prospective cross- sectional study was conducted following declaration of Helsinki. The approval was sought from Ethical review committee. Fifty- six patients scheduled for urinary bladder surgeries were taken for present study. Patients aged between 18- 60 years, physical status of American Society of Anesthesiologists (ASA) Class 1, 2 and 3 were included. Exclusion criteria were patients on anti-platelet or anticoagulant drugs, patients admitted in intensive care unit (ICU), patients having local infection at site of block etc.

Simple stratified random sampling was performed. Patients were equally divided into 2 groups. Group I (28) patients received GA and group II (28) received RA. Patients in I were given intravenous glycopyrrolate 10 µg/kg and midazolam 0.05 mg/kg as premedication, fentanyl 2 µg/kg as analgesic, propofol 2 mg/kg as induction agent, atracurium 0.5 mg/kg as muscle relaxant, while depth of anesthesia was maintained with sevoflurane as inhalational agent and intravenous atracurium 0.1 mg/kg. In group II, spinal anaesthesia was provided using 2-3 ml of 0.5% bupivacaine heavy with 15 ml of 2% lignocaine, total volume being 30 ml. Results of study were recorded and subjected for statistical inferences using Mann Whitney U test. The level of significance was below 0.05.

RESULTS

There were 15 males and 13 females in group 1 and 14 males and 14 females in group 2. ASA grade 1 was seen in 18 in group 1 and 20 in group 2, grade 2 in 10 in group 1 and 8 in group 2 (P> 0.05) [Table 1].

We found kindness score of 7.2 and 8.6 in group 1 and group 2, information score of 8.9 and 9.5 in group 1 and group 2, feeling of safety score of 7.0 and 8.7 in group 1 and group 2, demands met score of 6.9 and 8.2 in group 1 and group 2, anxious score of 1.9 and 1.1 in

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group 1 and group 2, attention given score of 6.2 and 8.5 in group 1 and group 2, pain score (VAS) of 4.7 and 2.3 in group 1 and group 2, relaxed feeling score of 6.8 and 8.9 in group 1 and group 2, nausea score of 1.9 and 1.2 in group 1 and group 2 and wellbeing score of 6.3 and 8.4 in group 1 and group 2 respectively. A significant difference was observed (P< 0.05) [Table 2, Figure 1].

In group 1 and group 2, duration of analgesia was 2.45 hours and 6.42 hours, duration of stay was 4.6 days and 3.2 days, pain score after 12 hours was 4.02 and 2.84, pain score after 24 hours was 4.05 and 2.56 and pain score after 48 hours was 4.05 and 2.56 respectively. A significant difference was observed (P< 0.05) [Table 3, Figure 2].

Table 1: Demographic data

Variables	Parameters	Group 1	Group 2	P value
Gender	Male	15	14	0.12
	Female	13	14	
ASA grade	1	18	20	0.08
	2	10	8	
	3	0	0	

Table 2: Evaluation of patient satisfaction scores

Score	Group 1	Group 2	P value
Kindness score	7.2	8.6	<0.05
Information score	8.9	9.5	<0.05
Feeling of safety score	7.0	8.7	<0.05
Demands met score	6.9	8.2	<0.05
Anxious score	1.9	1.1	<0.05
Attention given score	6.2	8.5	<0.05
Pain score (VAS)	4.7	2.3	<0.05
Relaxed feeling score	6.8	8.9	<0.05
Nausea score	1.9	1.2	<0.05
Wellbeing score	6.3	8.4	<0.05

Table 3: Comparison of variables between two groups

Score	Group 1	Group 2	P value
Duration of analgesia (hours)	2.45	6.42	
Duration of Stay (days)	4.6	3.2	<0.05
Pain score after 12 hours	4.02	2.84	<0.05
Pain score after 24 hours	4.05	2.56	<0.05
Pain score after 48 hours	4.05	2.56	<0.05

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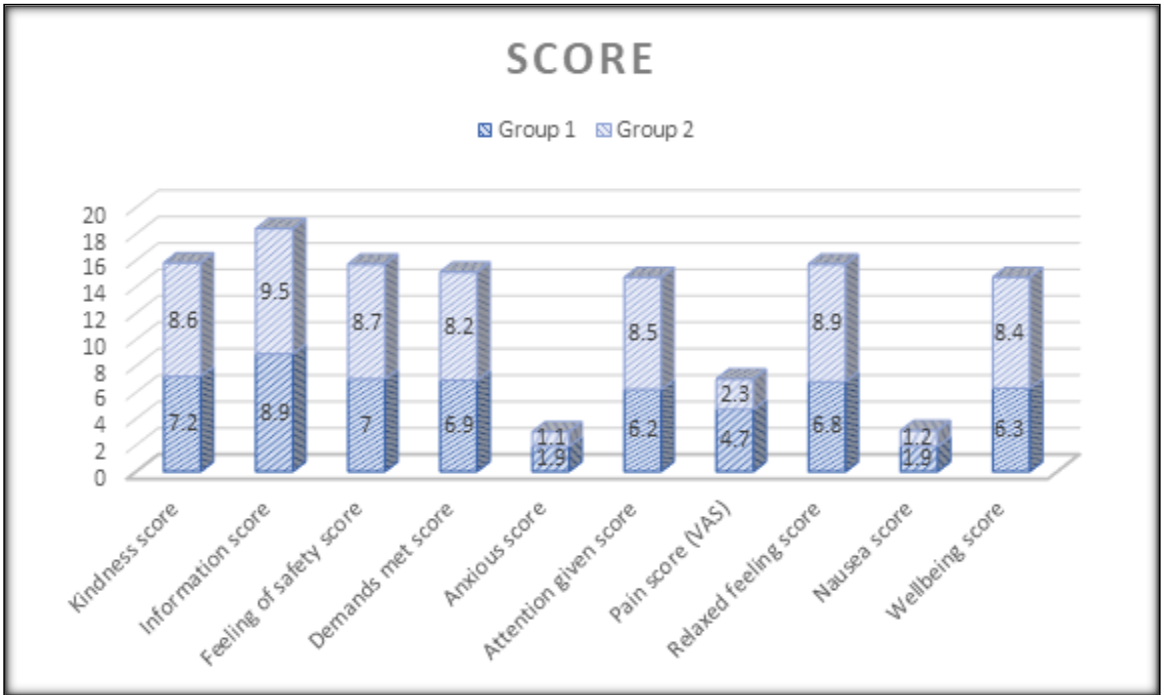

Figure 1: Scoring in two groups

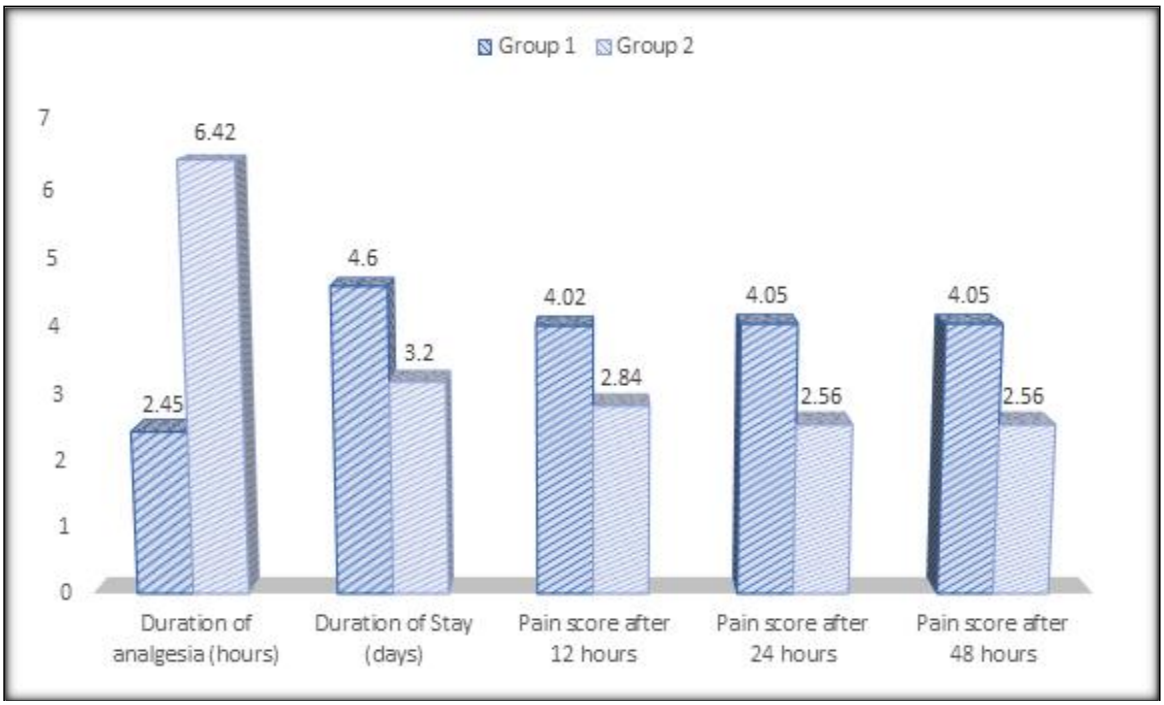

Figure 2: Comparison of two groups

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DISCUSSION

We conducted this study on fifty- six patients scheduled for urinary bladder surgeries. It comprised of 15 males and 13 females in group 1 and 14 males and females in group 2. The success of regional anesthesia is influenced by several factors.[13] Most patients expect uneventful perioperative process.[14] Nevertheless, recovery from surgery and anesthesia is sometimes complicated by major and minor complaints including pain, nausea, vomiting and other.[15,16] Although there is no scientific or clinical evidence that regional anesthesia is superior to general anesthesia, regional anesthesia has some advantages like keeping consciousness of the patient during surgery, continuation of spontaneous breathing, avoiding the loss of protective reflexes, allowing early mobilization in the postoperative period and shortening the length of hospital stay. However, the major contraindication for regional anesthesia is the patient's unwillingness.[17]

Our study showed that kindness score was 7.2 in group 1 and 8.6 in group 2, information score was 8.9 in group 1 and 9.5 in group 2, feeling of safety score of 7.0 and 8.7 in group 1 and group 2 respectively. Suresh et al,[18] compared patient satisfaction between regional anaesthesia (RA) and general anaesthesia (GA) in patients undergoing upper limb surgeries. Patient satisfaction with anaesthesia was assessed in patients receiving GA and RA, with 100 patients in each group, at least 24 h after the surgery with a 10-item predesigned peri-operative questionnaire. The patients in group RA showed significantly higher satisfaction scores than those in GA ($P < 0.001$) with respect to all the 10 items of the questionnaire and the total score. Duration of analgesia was also significantly longer in RA than GA ($P < 0.001$). Duration of hospital stay was also significantly longer in GA than in RA ($P < 0.001$).

Our study showed that demands met score of 6.9 and 8.2 in group 1 and group 2, anxious score of 1.9 and 1.1 in group 1 and group 2, attention given score of 6.2 and 8.5 in group 1 and group 2, pain score (VAS) of 4.7 and 2.3 in group 1 and group 2, relaxed feeling score of 6.8 and 8.9 in group 1 and group 2, nausea score of 1.9 and 1.2 in group 1 and group 2 and wellbeing score of 6.3 and 8.4 in group 1 and group 2 respectively. Gempeler et al,[19] in a prospective observational study collected information from 550 patients; 200 procedures under general anesthesia, 200 with central regional or neuroaxial anesthesia, 100 with regional peripheral anesthesia and 50 procedures using combined anesthesia (general and regional neuroaxial). The length of stay at the PACU was established in terms of the time elapsed until the patient's condition was appropriate for discharge. 99.1 % of the patients reported being pleased with the anesthetic procedure. There were no significant differences among the different techniques. Among other complaints, the most frequent were pain and feeling cold at the PACU and painful administration of the anesthetic. The length of stay at the PACU was significantly shorter with regional peripheral anesthesia as compared to the other techniques used.

Our study demonstrated that duration of analgesia was 2.45 hours and 6.42 hours, duration of stay was 4.6 days and 3.2 days, pain score after 12 hours was 4.02 and 2.84, pain score after 24 hours was 4.05 and 2.56 and pain score after 48 hours was 4.05 and 2.56 in group 1 and group 2 respectively. Akpinar et al,[20] assessed patient satisfaction with a

regional anesthesia procedure and factors associated with the mood state of those patients at the time. The study was performed with 300 patients who underwent surgery under regional anesthesia. The overall level of satisfaction with regional anesthesia was 82.3%. The level of satisfaction was higher in the age group of 18-25 years, male gender, in patients who had a previous regional anesthesia experience, and in patients who were well informed about regional anesthesia in a preoperative anesthetic evaluation. There was a relationship between pain due to failed spinal anesthesia during surgery and dissatisfaction with regional anesthesia. Patients who were properly informed preoperatively mostly expressed the feeling of "safe." Patients who underwent urological interventions most often expressed the feeling of "comfortable". Patients underwent gynecological and obstetrical surgeries mostly expressed the feeling "excited". Patients who underwent general surgical procedures and patients who were not informed preoperatively about regional anesthesia most often reported feeling "anxious."

CONCLUSIONS

There was better patient satisfaction, longer duration of analgesia and lesser duration of hospital stay with RA than GA.

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