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The Effect of Murottal Al Quran Therapy on Anxiety Level According to Hamilton Anxiety Rating Scale (HARS) in Patient Receiving Subarachnoidblock Anesthesia

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Abstract: ***Pre-operative psychological suggest that pre-operative stress greatly contributes to the severity of post-operative pain and fatigue. Current anxiety therapy had not been able to significantly reduce anxiety levels and has many adverse side effects. The goal is to achieved the effect of calm and suppress patient anxiety by listening to the chanting of this Koran so that the use of sedation drugs can be more minimal. This research is an experimental study with a Randomized Controlled Trial (RCT) design in patients undergoing Subarachnoidblock (SAB) anesthesia with and without the listening of Murottal Alquran hearing intervention. Study sample were patients aged 18 - 55 years receiving Subarachnoid block anesthesia in General Hospital Dr. Soetomo and RSI A. Yani Surabaya operating room. HARS score was measured pre and post opperatively. 30 patients were included in the study. Demographic data was obtained. Comorbidities, literacy, and the understanding of Qur'an were documented as the basis of the study. From the results of HARS measurements before and after treatment, the Wilcoxon test results showed that there were significant differences in HARS before and after treatment (p <0.05), both in the Murotal and the Reducer groups. There was a tendency for a greater decrease in anxiety values in patients who received Murottal Alquran therapy.***

Keywords: Murottal, Anxiety, Audio Therapy, Subarachnoidblock Anesthesia

1. Introduction

Anxiety is a private mental perception on uncomfortable state in response of incapability or insecurity [1]. Anxiety itself could be a natural response to increase heart and respiratory rate. The Inability to comprehend the state of anxiety could triger other psychologic symptoms such as depression, insomnia, decreased apetite and self care [2].

Pre-operative psychological factors for post-operative side effects, suggest that pre-operative stress greatly contributes to the severity of post-operative patient pain and fatigue one week after surgery. A psychological response will not only affect the level of anxiety but will affect subsequent complications. One complication in patients with surgical wounds is pain [3]. Anxiety causes an increase in epinephrine and norepinephrine in the blood circulation, this results in an increase in blood pressure, heart rate and oxygen demand in the myocardium. In stressful situations due to physical trauma or sepsis, the body normally provides physiological responses in the form of changes in the metabolic and hormonal systems including endocrine, immunological and inflammatory with the goal of maintaining the state of homeostasis for survival.

Current anxiety therapy had not been able to significantly reduce anxiety levels and has many adverse side effects for hemostasis including bradycardia, hypotension, intestinal dysmotility, immobility, weakness and delirium. This has encouraged the development of non-pharmacological therapies to have a significant impact on reducing anxiety levels. Some complementary therapies such as massage, therapeutic touch, relaxation, aromatherapy, muscle relaxation and music therapy have proven effects in reducing anxiety and reducing the use of drugs. Complementary therapy using music has been shown to reduce anxiety through distraction in the brain from stressful environmental stimuli using auditory stimuli [4].

Murottal audio therapy is an activity of listening to the recording of the recitation of the verses of the Koran that is sung by a Qori 'or reader of the Koran in accordance with the good and correct recitation. The effects of murotal Alquran therapy on the body's response have been widely studied by scientists and show that music and murottal have a positive effect on pain and anxiety and also improve the quality of life of individuals. Listening to the voice of the Koran diverts thoughts from anxiety, pain, and negative experiences to pleasant thoughts (remembering Allah). Therefore, it helps people to deal with emotional distress and reduce their anxiety. Reading of the chanted verses of the Koran can cause calm and have an effect on the healing process [5].

Listening to the voice of the Koran diverts thoughts from anxiety, pain, and negative experiences to pleasant thoughts (remembering Allah). Therefore, it helps people to deal with emotional distress and reduce their anxiety. Atye et al. in his study stated that the sound of the Koran can significantly reduce anxiety in patients before cardiac catheterization [6]. Thus, health care providers can use the voice of the Koran in combination with current treatments to reduce patient anxiety. However, conducting long-term and larger-scale studies of patients undergoing cardiac catheterization and other patient populations is needed to provide plenty of evidence regarding the effectiveness of the Koran's voice in increasing anxiety. Furthermore, comparing the sound effects

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of the Koran with hypnotic sedative drugs on patient anxiety is also recommended [7].

One of the anesthetic methods that can utilize audio murrotal therapy is Subarachnoidblock (SAB) anesthesia. Subarachnoidblock anesthesia (SAB) or commonly called spinal anesthesia is an anesthetic action by inserting analgesic drugs into the subarachnoid space in the lumbar vertebrae region which then will occur sensory excitatory barriers starting from the thoracic vertebra 4 [8]. The goal is to dissect the area of the body which is innervated by the T4 branch down (the papilla mamae area down). Maximum duration of surgery is 2-3 hours.

The goal is to achieved the effect of calm and suppress patient anxiety by listening to the chanting of this Koran so that the use of sedation drugs can be more minimal. At present there is not much research on the effect of murottal Alquran therapy on the condition of patients with Subarachnoidblock (SAB) anesthesia during and after surgery. Therefore researchers proposed research with the theme of the influence of murottal Alquran therapy on changes in anxiety levels in patients with SAB anesthesia which were assessed using the Hamilton Anxiety Rating Scale (HARS).

2. Research Method

This research is an experimental study with a Randomized Controlled Trial (RCT) design in patients undergoing Subarachnoidblock (SAB) anesthesia with and without the listening of Murottal Alquran hearing intervention. Outcome is an anxiety level according to the Hamilton Anxiety Rating Scale (HARS). The study sample was patients aged 18 - 55 years who received Subarachnoid block anesthesia in Dr. Regional operating room. General Hospital Soetomo and RSI A. Yani Surabaya.

In the preoperative setting, HARS score will be measured according to the inclusion and exclusion criteria of the study. In the premedication room, blood pressure measurements are carried out. Patients were given interventions according to their research group. Group A was given Qoran therapy which was played through headphones, and group B was as a control group. Hemodynamic parameters monitoring was done every 15 minutes. HARS measurement was done after the intervention of giving Murrotal Alquran / not during operation.

Differences in HARS values between groups (Q and Control) will be analyzed using t-test analysis of free samples if the data are normally distributed or the Whitney test if the data are not normal.

3. Result

In this study, a total of 30 research subjects were obtained which were divided into 2 groups, namely group P (Reducer) and group M (Murrotal), each consisting of 14 and 16 research subjects. Based on age, the youngest age was obtained in all study samples, namely 20 years and 22 years and the oldest age was 55 years and 52 years in group M and group P. Characteristics of patient samples such as gender, comorbid, can read the Koran, understand the meaning of the Koran and music favorites can be seen in Table 1.

Table 1: Research Subjects Characteristics

Characteristic	Group		P value
	Murotal (n = 16)	Sliencer (n = 14)	
Age (yo)			
Median (min – max)	42 (20 – 55)	47 (22 – 52)	0,260
Sex			
Male	7 (43,8%)	6 (42,9%)	1,000
Female	9 (56,3%)	8 (57,1%)	
Comorbidities			
Yes	6 (37,5%)	4 (28,6%)	0,709
No	10 (62,5%)	10 (71,4%)	
Able to read Qur'an			
Yes	14 (87,5%)	10 (71,4%)	0,378
No	2 (12,5%)	4 (28,6%)	
Able to understand Qur'an			
Yes	4 (25%)	2 (14,3%)	0,657
No	12 (75%)	12 (85,7%)	
Favorite Music			
Folksong / Javanese music	1 (6,3%)	2 (14,3%)	
Dangdut / Dangdut koplo	1 (6,3%)	4 (28,6%)	
Murottal	3 (18,8%)	1 (7,1%)	
Classical	1 (6,3%)	0 (0%)	0,499
Pop	7 (43,8%)	7 (50%)	
Religious	1 (6,3%)	0 (0%)	
Rock	1 (6,3%)	0 (0%)	
All type	1 (6,3%)	0 (0%)	

Based on the ability to read the Qur'an and understand the Qur'an, in group P there were 10 research subjects who were able to read the Qur'an and 4 research subjects were unable to read the Qur'an. Of the 10 research subjects who were able to read the Qur'an, 2 research subjects were able to understand the Qur'an and 12 research subjects were not able to understand the Qur'an. In group M, there were 14 research subjects who were able to read the Qur'an and 2 research subjects were not able to read the Qur'an. Of the 14 research subjects who were able to read the Qur'an, a total of 4 research subjects were able to understand the Qur'an and 12 research subjects were not able to understand the Qur'an. Fisher's Exact test results on reading bias Quran data and understanding the meaning of Al Quran show no significant difference between Murotal and Silencer groups ($p > 0.05$).

Shapiro-Wilk test results show only HARS data before the treatment of the Reducer group that is normally distributed ($p > 0.05$), others are not normally distributed. Differences in HARS (before and after treatment) between the Murotal and the Silencer groups were analyzed using the Mann Whitney test. HARS differences before and after treatment in each group were analyzed the Wilcoxon Signed Rank test.

Wilcoxon test results show that there are significant differences in the HARS before and after treatment ($p < 0.05$), both in the Murotal and the Reducer groups. Mann Whitney test results showed no significant differences between the HARS group murotal and reducer ($p > 0.05$), both in the data before, after and the difference. (Table 2)

Table 2: HARS, before and after treatment in each group

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Group	n	Median (min – max)		Differences	P value
		Pre	Post		
Murotal	16	7 (5 – 8)	3 (3 – 4)	-3,5 (-5 – -1)	< 0,001*
Silencer	14	6 (5 – 8)	3,5 (3 – 5)	-2,5 (-4 – 0)	0,001*
P value		0,333	0,416	0,249	

4. Discussion

This study involved 30 samples who received therapy in the Koran chanting and not in adult patients who would undergo elective surgery at GBPT Dr Soetomo Hospital Surabaya and RSI Ahmad Yani. The role of hypnosis by listening to the chanting of the Koran is very important in reducing the level of patient anxiety. Several other factors that influence, among others, age, sex, level of education, ability to read and understand the meaning of the Koran.

Research related to the use of the chanting of the Koran (Murottal) has been done several times. Diana et al., conducted a study with a sample of 9 pregnant women who underwent normal childbirth, found a significant decrease in pain levels in 80% of the trial sample after administration of murrotal therapy [9]. This data is supported by a study by Alyensi & Arifin on 20 trials of pregnant women who were in labor during the first phase of active phase and received a murrotal therapy for 30 minutes with a reduction in the average pain rate of 6.75 with Verbal Description Scale (VDS), Comparative Pain Scale and Wong Baker Pain Rating Scale before giving murrotal to 4.80 after giving therapy with significant results (p <0.005) [10]. In addition, in 2018, Nuhan et al. Conducted an trial of giving murrotal therapy to 22 pregnant women patients undergoing cesarean section [11]. The study concluded there was a significant result in decreasing pain intensity in the treated group compared to the control group. It is recommended that routine use of murrotal therapy be started in cases of cesarean section. Nuhan et al., All three studies provide strong evidence of the use of Murrotal therapy in reducing the level of pain intensity in individuals receiving therapy [11]. Namely Kaida et al. conducted an anxiety-related study by giving murrotal therapy to 31 respondents who had had a cesarean section. The study used a pre-post study design to determine the effects of murrotal therapy. From these studies obtained significant results decreased levels of anxiety after the administration of murrotal therapy [12]. This study was also supported by research on anxiety in pregnant women who underwent normal delivery by Wulansari [13]. The study design used Quasi Experimental with One Group Pre-test and Post-Test Without Control Group Design approaches. The sample in this study was the first stage latent birth mothers involving 32 respondents. The level of anxiety of this study used the Z-SRAS (Zung Self-Rating Anxiety Scale) questionnaire. Murottal therapy in this study using QS. Ar-Rahman (1-78 verses) for 25 minutes with Qari 'Mishary Bin Rashid Alafasy through MP3 and earphones. From this study, a significant difference was found in the pre- and post-treatment groups with an average point decrease of 9,938 (p <0.001) [13].

In our study, a sample of 30 patients who underwent elective surgery was used and 15 minutes of murrotal therapy was administered to 16 randomized samples. Whereas the control group did not get murrotal therapy (control). Although no significant results were obtained between the two groups both before and after the administration of statistical murrotal therapy, but there was a tendency for the decrease in anxiety values to be greater in patients receiving Murottal Alquran therapy. This can be due to the required supporting data on the objective results of patient anxiety levels.

The results of the documentation in both groups showed that patient anxiety from the results of the study in these two groups could not decrease significantly. Based on observations when collecting data shows that some subjects have obstacles to be able to express their feelings to others, so they seem passive and closed. If the research subject is like this, the intervention is less dynamic and open, and the results are less than optimal. This is in accordance with the opinion of Himelstein [14]. Religious intervention is less suitable when given to subjects who are less active, lack curiosity and self-disclosure, namely the ability to express personal feelings to others. In severe anxiety, they still need a longer process to overcome their psychological condition. According to Carpenito, individuals who experience severe anxiety greatly reduce their perception land [15]. The individual tends to think of small things and ignore other things.

5. Conclusion

Patient anxiety values according to the Hamilton Anxiety Rating Scale (HARS) in preoperative do provide a statistical difference. Patients have uniform anxiety level. Changes in patient anxiety values according to the Hamilton Anxiety Rating Scale (HARS) after the administration of Murottal Alquran therapy during surgery did make a statistical difference and there was a tendency for a decrease in anxiety values to be greater in patients who received Murottal Alquran therapy. The use of therapy with the chanting of the Koran during the operation can be done with a simple procedure and low cost. Further studies are needed with a larger number of samples to better evaluate changes in anxiety values in patients receiving subarachnoidblock anesthesia (SAB) by hearing murottal Alquran therapy.

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