

Comparative Effect Haloperidol and Quetiapine within Positive Symptoms for Female Schizophrenic Patient

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Abstract

Schizophrenia is a worldwide public health problem that requires a lot of personal and economic costs. Schizophrenia affects approximately 1% of the world's population. Anti-psychotic drug used in the treatment of schizophrenia have varying pharmacologic properties, first-generation antipsychotic Drugs such as neuroleptics is due to neurologic side effects equation. The second generation of antipsychotics or newer fewer neurological effects. In-depth research related to the use of antipsychotics, especially on the improvement of positive symptoms in schizophrenic patients are still very few women. methods; This research is an experimental study, the two forms of group pretest posttest design, which uses a questionnaire Positive and Negative Syndrome Scale (PANSS) is a valid measurement tool to assess the severity of symptoms experienced by patients with schizophrenia and an assessment of the output terapeutik. Kriteria Inclusion: Female Patients , age 15- 55 years, Body Mass Index from 18.50 to 24.99, have the same severity, acute phase, Exclusive criteria; hypersensitivity to quetiapine or haloperidol, komorbiditas pregnant and general medical illness, organic mental disorder or disturbance other psychiatric systolic blood pressure <100 mmHg. Of the study obtained for the largest proportion of the study subjects quetiapine group was aged 15-24 years, while for the 45-55 age group. haloperidol significantly different on demographic factors; age, occupation, marital status, and the educational status. Has the significant differences in scores on the PANSS positive scale and the third week, fourth drug intervention using either quetiapine or haloperidol ($P < 0.05$). The proportion of the largest studies on the subject of female schizophrenic patients grouped quetiapine is aged 15-24 years and 45-55 years, while haloperidol obtained difference scores on the PANSS scale significantly positive drug intervention on the day the third and fourth.

Keywords: female schizophrenic patient, PANSS, quetiapine, haloperidol

1. Introduction

Schizophrenia is a common health problem worldwide that require a lot of personal and economic costs. Schizophrenia affects approximately 1% of the world population. If the schizophrenia spectrum disorders included in the estimation of prevalence, the number of people affected increased by about 5%. Anti-psychotic drug used in the treatment of schizophrenia has pharmacological properties that vary, but all have the capacity as an antagonist at the post-synaptic dopamine receptors in the brain. The first-generation antipsychotic drugs are as neuroleptics because equation neurologic side effects. The second generation or later of antipsychotics fewer neurological effects and more as anti-psychotic atipikal.¹⁻⁴

Quetiapine reported in short-term studies (6 weeks) were able to lower PANSS score of 18.7 points, while haloperidol decrease PANSS score of 22.1 poin.⁵ In another study also mentioned the high dose (750mg / day) quetiapine and haloperidol (12 mg / day) were given to 286 patients hospitalized may reduce positive symptoms for 6 weeks penelitian.⁶ Siti Nurul reported that out of 20 people (16 men and 4 women) patients who have received quetiapine and an assessment on the third day showed a mean score of the PANSS positive sub-scale of 30.6 (SD 3.3). In patients who have been given haloperidol (15 men and 5 women) showed a mean score of the PANSS subscales positive at 29.9 (SD3,2) value of $P = 0.495$. There is no change in PANSS subscales.⁷

2. Subject and Methods

This study was approved by the Research Ethics Committee of Medical Faculty University of Sumatera Utara. This study was performed in Mental Hospital of Province of North Sumatera, on the regulation of Medical Faculty of University of North Sumatera. Research time from September 1 2011 until November 20 2011. The criteria inclusion are female schizofrenic patients who met the diagnostic criteria according ICD-10⁸, age 15 to 55 years, ideal body weight (BMI = 18.50 to 24.99), has the same severity measured by the PANSS total score > 90 and with the provisions of sub-scale score of ≥ 5 positive on one or more of the following PANSS items: delusions, thought processes chaos, hallucinatory behavior, suspicion / paranoid, at the acute phase. Written informed consent was obtained from all participants after giving a full explanation of the study protocol. Autoanamnese undergo direct interview using a measurement scale PANSS to compare the effects of quetiapine and haloperidol in reducing positive symptoms in female schizophrenic patients.

2.1 Assessment and Rating

First, the patient will be measured using the PANSS severity, then the patient will undergo the ICD-10 and in the acute phase before getting treatment intervention. Twenty samples will be interfered with risperidone. Every two weeks the patient was observed and the dose titrated. The initial dose of quetiapine 150 mg / day every 2 weeks was observed and the dose titrated slowly until it reached 750 mg/day for 8 weeks. If the patient does not achieve clinical remission after 2 weeks of administration of risperidone, the patient was considered unresponsive to treatment with risperidone and excluded in this study. Furthermore, the patients will be given treatment with other antipsychotics. During the study, additional drugs may be administered to the patient is limited to trihexyphenidyl a dose of 4 mg/day (split into two feedings). Then re-examination in the eight week, to assess the severity of schizophrenic patients used a scale of measurement to assess the PANSS score. For The control group using the initial dose of haloperidol 5 mg/day and slowly it reached 20 mg/day for 8 week. Then re-examination in the eight week, to assess the severity of schizophrenic patients used a scale of measurement to assess the PANSS. Assessment results PANSS scores at baseline before treatment with after the eighth week of treatment assessed whether there was an improvement.

2.2 Statistical Analysis

Analytical studies with experimental approaches One group pre test - post test design to see the effect of improving the effectiveness of quetiapine and haloperidol on scores Positive and Negative Syndrome Scale (PANSS) in schizophrenic female patients. The results of PANS scores at the time before and after treatment incorporated into the data and then tabulated and processed. Statistical analysis using the chi-square. Processing and data analysis using SPSS statistical test. From the independent t-test values seen no significant difference between the mean value comparison 2 groups of quetiapine and haloperidol before and after $p = 0.001$.

3. Result

Table 1. Distribution of the study sample based on demographic characteristics.

	quetiapine		haloperidol		P
	n	(%)	n	(%)	
Age group					
15-	8	40	4	20	0,250
25-	5	25	3	15	
35-	4	20	6	30	
45- 55	3	15	7	35	
Total	20	100	20	100	

From table 1. above, it can be seen that the distribution of the study sample by age group with the most samples for the group that received treatment quetiapine is the age group of 15-24 of 8 samples (40%) and having at least a sample is the age group of 45-55 for 3 samples (15%), the group receiving haloperidol therapy that has the most samples were ages 45-55 at 7 samples (35%) and having at least a sample is the age group of 25-35 for 3 samp (15%), using obtained chi square test $P = 0.250$ ($P > 0.05$) found no significant difference in the proportion of group therapy based on age.

Table .2. Distribution of samples Quetiapine and haloperidol treatment groups based on demographic characteristics level of education.

Characteristic Demographic	Therapy						
	Quetiapine		Haloperidol		Total		P
	n	%	n	%	n	%	
Level of Education							
Primary School	7	35	3	15	10	25	0.057
Junior High School	4	20	4	20	8	20	
Senior High School	7	35	10	50	17	42,5	
University	2	10	3	15	5	12,5	
Total	20	100	20	100	40	100	

From the table 2. above, can be seen in the quetiapine treatment groups based on the level of education that has the most samples are primary school education level and high school with a sample of each of the 7 samples (35%) while the lowest group of college education with a sample of 2 (10%). while in the haloperidol group has the most sampled at a rate of 10 samples of high school education (50%), while the sample at least at

the level of higher education that is 3 samples (15%). By using the chi square test P value = 0.507 obtained ($P > 0.05$) found no significant differences in the proportion of education.

Table.3. The interaction between quetiapine and haloperidol treatment on demographic characteristics based on marital status.

Demographic Characteristic	therapy				P
	Quetiapine		Haloperidol		
	N	%	N	%	
Marital Status					
married	9	45	12	60	0,324
unmarried	11	55	8	40	
Total	20	100	20	100	

From the table 4.3. The above can be seen in the interaction between quetiapine and haloperidol treatment on demographic characteristics based on marital status. In the quetiapine group most unmarried status of 11 samples (55%), whereas the haloperidol group most at the marital status of 12 samples (60%), the chi square test P value = 0.342 obtained ($P > 0.05$). There is no significant difference in the proportion of quetiapine and haloperidol groups based on marital status.

Tabel 4. Characteristic positive PANSS Score at week- 1 group therapy Quetiapine and Haloperidol

PANSS Score	Therapy						P
	Quetiapine			Haloperidol			
	n	Mean	Standar deviasi	N	Mean	Standar deviasi	
PANSS positif	20	23.05	1,39	20	22,15	1,92	0,128

On the measurement of positive PANSS scores at the fifth day were found positive PANSS scores for quetiapine treatment groups with a mean of 26.6 (SD \pm 1.99) and PANSS positive scores for haloperidol treatment group mean value of 26.05 (SD \pm 1.19), $P = 0.226$ ($P > 0.05$). There were no significant differences in PANSS positive scores on the fifth day by the intervention group.

Tabel 5. Characteristic positive PANSS Score at week- 2 group therapy Quetiapine and Haloperidol

PANSS	Terapi						P
	Quetiapine			Haloperidol			
	n	Mean	Standar deviasi	N	Mean	Standar deviasi	
PANSS positif	20	20,3	1,65	20	19,5	1,95	0,361

On the measurement of the PANSS positive score in the second week were found positive PANSS scores for quetiapine treatment groups with a mean of 20.3 (SD \pm 1.65) and PANSS positive scores for haloperidol treatment group mean value of 19.5 (SD \pm 1.95), $P = 0.361$ ($P > 0.05$). There were no significant differences in PANSS positive scores on the second week based intervention group.

Tabel 6. Characteristic positive PANSS Score at week- 3 group therapy Quetiapine and Haloperidol

PANSS	Terapi						P
	Quetiapine			Haloperidol			
	N	Mean	Standar deviasi	N	Mean	Standar deviasi	
PANSS positif	20	14,65	1,13	20	16,15	1,42	0,001

On the measurement of the PANSS positive score in the third week found positive PANSS scores for quetiapine treatment groups with a mean of 14.65 (SD \pm 1.13) and PANSS positive scores for haloperidol treatment group mean value of 16.15 (SD \pm 1.42), P = 0.001 (P <0.05). Obtained positive PANSS scores were significant differences in the third week based group intervention.

Tabel 7. Characteristic positive PANSS Score at week - 4 group therapy Quetiapine and Haloperidol

PANSS Scale	Therapy						P
	Quetiapine			Haloperidol			
	N	Mean	Standar deviasi	N	Mean	Standar deviasi	
PANSS positif	20	12,85	1,18	20	13,70	1,41	0,034

On the measurement of positive PANSS score at week four were found positive PANSS scores for quetiapine treatment groups with a mean of 12.85 (SD \pm 1.18) and PANSS positive scores for haloperidol treatment group mean value of 13.70 (SD \pm 1.41), P = 0.034 (P <0.05). Scores obtained significant differences in PANSS positive in the fourth week based group intervention.

4. Discussion

This study shows that the effectiveness of quetiapine may improve positive symptoms rates of female schizophrenic patients using a measurement PANSS scale. The results of this study show quetiapine more better than haloperidol to improve positive symptoms with PANSS scale can't directly express the effectiveness of risperidone may improve cognitive function or as a whole can be assessed that the schizophrenic patients, the better the prognosis will also cognitive function.

This showed no difference in PANSS scores level sub positive scale in the provision of quetiapine compared to haloperidol administration. This is similar to the results the gain is not significantly different to the score of the PANSS positive sub-scale in the fifth and seventh (Hidayati,2009).

5. Conclusion

From the this study it was found that risperidone effectively improves positive symptoms in female schizophrenic patients based on the presence of significant differences in PANSS Score (p = 0.034)

Treatment of schizophrenic patients should pay attention to positive symptoms. Provision of atypical antipsychotics may be considered to improve positive symptoms than typical antipsychotic in female schizophrenic patients.

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