

Antipsychotic polypharmacy in schizophrenic patients with comorbid substance use disorder

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Introduction

In schizophrenia, treatment resistance and unsatisfactory functional outcomes continue to be a significant clinical and public health problem. In this context, antipsychotic combination treatment, also called antipsychotic polypharmacy, has been utilized frequently in clinical practice. Substance use disorder in individuals with schizophrenia is very common (ranging from approximately 15 to 65%); it has become the most prevalent comorbid psychiatric condition associated with schizophrenia and contributes to an unfavorable disease course. Recommendations for antipsychotic pharmacotherapy in schizophrenia are based on studies that excluded patients with this dual diagnosis. Studies suggest that oral second generation antipsychotics may be superior to first generation antipsychotics in treating certain psychopathological symptoms, and in reducing craving and drug consumption. Antipsychotic polypharmacy (P) is a common pharmacological strategy as it is shown in the reviewed literature.

Objectives

To analyze the prescription pattern of antipsychotics in patients affected of schizophrenia or schizoaffective disorder fulfilling substances use disorder (SUD) criteria at the time of discharge of a brief dual diagnosis unit. More specifically we try to find distinguishing characteristics between those patients receiving antipsychotic monotherapy (M) and those treated with antipsychotic polypharmacy regimen (P).

Methods

Data on demographic, family, and clinical factors were gathered among subjects admitted to our dual diagnosis unit between September 2007 and September 2010, all of them meeting DSM-IV criteria for schizophrenia or schizoaffective disorder and comorbid SUD. Statistical analysis was performed by using SPSS program.

Results

- From the whole sample (N=135), age 37,7±10,2, most of them (71,9%) were male and 91,7% admitted from emergency room. Mean length of stay were 19,5±18,2. Main reason for admittance were hallucinations/delusions (38,9%), behavioral disturbances (26%) and suicidal ideation (18,3%).
- Distribution of non-SUD diagnosis were as follows: schizophrenia (N=117) and schizoaffective disorder (N=18); in addition, some patients had comorbidity with personality disorders (N=8), anxiety disorders (N=3) and adjustment disorders (N=2). In our sample, most common comorbid SUD were cocaine (N=70; 51,9%), alcohol (N=67; 49,6%), and cannabis (N=60; 44,4%).
- Comparing to M group (N=56; 41,5%), we found that P group (N=79; 58,5%) had more prevalence of non-married/single status, more pending legal issues, higher prevalence of arrests by police in the past 6 months, a higher rate of hospital readmissions between 30 and 90 days after discharge, later consumption of substance of abuse as benzodiazepines and heroin, later problematic use of illegal drugs as benzodiazepines, heroin and a trend in cannabis, and later first admission in a psychiatric hospital. No differences were observed between both groups neither in the prevalence of SUD, psychiatric clinical presentation at admission nor regarding organic issues (see Table 1).
- There were no statistically significance differences between both groups in mean number of psychotropic drugs. However, P group showed a tendency to receive less antidepressive drugs, less anticraving drugs and more anticholinergic drugs, oral typical antipsychotics, oral atypical antipsychotics and depot atypical antipsychotics (see Table 2).

Table 2. Prescribed drugs pattern at discharge

	Monotherapy (N=56)	Polytherapy (N=79)	P
Patients on benzodiazepines at release (%)	51,8%	57,0%	0,601
Patients on antidepressives at release (%)	32,1%	11,4%	0,004**
Patients on stabilizers at release (%)	55,4%	46,8%	0,384
Patients on anticholinergic at release (%)	23,2%	39,2%	0,063*
Patients on anticraving at release (%)	10,7%	2,5%	0,066*
Mean number of psychotropic drugs at release (SD)	2,7 (1,0)	2,6 (1,0)	0,318
Mean number of antipsychotics at release (SD)	1 (0,0)	2,5 (0,7)	<0,001**

Table 1. Comparative data between both antipsychotic monotherapy (M) and antipsychotic polytherapy (P) groups

		Antipsychotic Monotherapy (M) (N=56; 41,5%)	Antipsychotic Polytherapy (P) (N=79; 58,5%)	P value
Sex, %	Male	75,0%	76,5%	NS
Age, years	Mean (standard deviation)	30,5±6,6	37,2±9,9	0,0001**
Marital status, %	Non Married	68,4%	68,6%	NS
Level of education, %	No education	0,0%	1,3%	NS
	No high school diploma	47,6%	40,1%	
	High school diploma or college	52,3%	58,6%	
Employment, %	Unemployed	94,7%	87,1%	NS
Parental substance abuse background		53,3%	65,4%	NS
Parental mental illness background		55,6%	55,3%	NS
Length of admission	Mean (standard deviation)	39,8±19,7	18,3±14,6	0,0004**
Clinical characteristics at admission	Hallucinations/delusions	80,0%	48,0%	0,029**
	Suicide attemp/suicide ideation	5,0%	6,9%	
	Others	15,0%	45,0%	
Main drug of abuse	Stimulants	45,0%	33,7%	NS
	Sedatives	55,0%	66,3%	
Personality disorder		2,0%	7,3%	NS
Cocaine SUD		60,0%	44,1%	NS
Cannabis SUD		55,0%	41,2%	NS
Alcohol SUD		30,0%	54,9%	0,042**
Opioid SUD		40,0%	15,7%	0,026**
Sedatives SUD		10,0%	15,7%	NS
Amphetamines SUD		15,0%	4,9%	NS
Hallucinogens SUD		0,0%	1,0%	NS
Volatil SUD		0,0%	3,9%	NS
Starting age of consumption, years	Cocaine	17,4±2,8	20,3±8,9	0,01**
	Cannabis	16,6±6	16,7±1	NS
	Alcohol	13,6±2,7	15,3±8,7	0,05**
	Opioid	14,8±8,4	15,6±10,5	NS
	Sedatives	16,7±7	22,2±12	0,069*
	Amphetamines	14,7±4,8	15,5±10	NS
	Hallucinogens	15,4±5,8	14,3±9	NS
	Volatile	11,4±4,5	9±9,5	NS
	Nicotine	12,7±2,8	14,7±4,5	0,083*
Age of problematic consumption	Cocaine	19,6±4,9	22,6±10,3	0,06*
	Cannabis	15,3±3,8	15,9±7,5	NS
	Alcohol	17,7±2,4	21,9±9,7	0,0004**
	Opioid	20,3±4,9	17,6±10	NS
	Sedatives	19,7±1,5	24±12	0,001**
	Amphetamines	18,1±6,1	15,6±11,2	NS
	Hallucinogens	15,7±1,1	8,4±9,4	0,00003**
	Volatile	12±0,1	8,3±8,6	0,005**
	Nicotine	13,5±2,9	15,6±4,6	0,07*
ASI subscales	Medical status	1,2±2,2	1,7±1,8	NS
	Psychiatric status	6,6±0,9	5,4±1,7	0,034**
	Alcohol use	5±1,6	5,4±2,1	NS
	Drug use	6,2±1,3	4,3±2,7	0,028**
	Family status	5,8±0,4	5,7±1,5	NS
	Employment	4,6±1,7	3,9±2,1	NS
	Legal status	3±2,7	2,5±2,3	NS

Note: SD, standard deviation.
**P < .05; 0,05 < *P < 0,09; absence of * indicates nonsignificance.

Conclusions

- Antipsychotic polypharmacy subjects shown later starting age of drug use and later non drug related psychiatric hospital admissions. No differences were observed between both groups in SUD prevalence, psychiatric reason for admittance or organic issues.
- There were no differences between both groups in terms of number of prescribed drugs but in P group a trend to receive less antidepressive and anticraving drugs were observed; we saw higher prevalence of prescribed anticholinergic drugs in these subjects.

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