Different profiles of psychostimulant misuse in patients with co-occurring severe mental illnesses and substance use disorders

G. Mateu-Codina[1,2,7], R. Sauras-Quetcuti[1,2], A. Farré-Martínez[1,3,7], R. Martínez-Riera[2], L. Galindo-Guarín[7], J. Martí-Bonany[4,7], M.G. Hurtado-Ruiz[5], M. Campillo-Sáenz[5], R. Sánchez-González[6], C. Castillo-Buenaventura[2], M. Torrens-Mèlich[1,2,3,7]

[1]Dual Diagnosis Unit. Institut de Neuropsiquiatria i Addicions, Centre Emili Mira, Parc de Salut Mar, Barcelona. [2]CAS Fòrum. Institut de Neuropsiquiatria i Addicions, Centre Fòrum, Parc de Salut Mar, Barcelona. [3]CAS Barceloneta. Institut de Neuropsiquiatria i Addicions, Hospital del Mar, Barcelona. [4]Partial Hospitalization Program. Institut de Neuropsiquiatria i Addicions, Centre Emili Mira, Parc de Salut Mar, Barcelona. [5]Acute Psychiatric Hospitalization Program. Institut de Neuropsiquiatria i Addicions, Centre Emili Mira, Parc de Salut Mar, Barcelona. [6]Institut de Neuropsiquiatria i Addicions, CSMA Sant Martí Nord, Parc de Salut Mar, Barcelona. [7]IMIM (Hospital del Mar Medical Research Institute), Barcelona), Barcelona.

E-mail: gmateu@parcdesalutmar.cat

Introduction

Substance use disorders (SUDs) and other psychiatric disorders such as schizophrenia, bipolar disorder, depression, and anxiety disorders are highly prevalent disorders worldwide, and lifetime and 12-month use, harmful use as well as dependence of substances are documented to be more prevalent in psychiatric patient populations when compared to the general population. SUDs of cocaine, psychostimulants and hallucinogens were the most prevalent in the schizophrenia spectrum disorders (schizophrenia, schizotypal disorder, and other psychoses) in a recent study of prevalence of dual diagnosis in a nationwide population-based study.

Objectives

To study prospectively the differential characteristics of a subgroup of dually diagnosed patients admitted to a psychiatric unit with a diagnosis of psychostimulant misuse, considering if they use amphetamine or cocaine as the main drug of abuse.

Material and methods

We collected prospectively demographic, family, and clinical data from all patients admitted to a dual diagnosis unit for three years, all of them meeting criteria of psychostimulant misuse. We grouped into two categories based on whether they had diagnosis of amphetamine substance use (Amphetamine) or cocaine substance use (Cocaine) according to DSM-IV criteria. Statistical analysis was performed by using SPSS program.

Results

In the studied period, 498 patients (70,9% males; mean age 36,8±7,8 years) were admitted. Main reason for admittance were hallucinations/delusions (36,5%), conduct disorders (25,3%), and suicide ideation /attempt (19,3%). Most frequent psychiatric diagnosis were psychotic disorder (41,8%), personality disorders (33,7%) and bipolar disorder (7,2%).

Compared with Cocaine group, Amphetamine subjects showed a higher prevalence of males, single status, educational level, and parental mental illness background. Inversely, they had lower prevalence on legal background and higher length of admission. Amphetamine subjects had higher prevalence of cannabis disorders and higher polydrug comorbidity (tables 1 and 2) and had lower clinical severity at admission (38,7±9,9 versus 44,6±11,2 in GAF scores).

There were no statistically significance differences between both groups in personality profile, except for a lower score on fatigability in Amphetamine subjects (table 3).

We found that Amphetamine subjects had an earlier first contact with cocaine, cannabis, and alcohol, as well as an earlier age of problematic consumption of amphetamines (table 4).

Table 1. Demographic Characteristics of both groups.

		Amphetamine (N=66; 13%)		Cocaine (N=432; 87%)		*P* value
Sex, %	Male	83,3%		69,0%		<0,001*
Age, years	Mean (SD)	37,2	(9,0)	36,7	(7,6)	0,59
Marital status, %	Single	74,2%		50,2%		<0,001*
	Married/Defacto	7,6%		21,5%		
	Divorced/Separated/Widow	18,2%		28,2%		
Level of education, %	No high school diploma	1,5%		2,5%		<0,001*
	High school diploma	25,8%		53,7%		
	Some college	72,7%		43,8%		
Employment, %		18,2%		14,8%		0,48
Legal background, %		10,6%		24,3%		0,013*
Parental substance abuse background		51,5%		50,2%		0,85
Parental mental illness background		74,2%		48,4%		<0,001*

**The chi-square statistic is significant at level 0.05.*

Tabla 3. Personality traits according to TCI-R results

		Amphetamine Mean	SD	Cocaine Mean	SD	*p*
Temperament						
Novelty seeking		61,1	10,3	58,8	10,4	0,42
	Exploratory excitability	50,5	10,1	49,2	10,3	0,66
	Impulsiveness	54,5	11,7	57,3	12,4	0,42
	Extravagance	68,1	9,8	62,7	11,2	0,09
	Disorderliness	57,9	11,4	54,9	11,3	0,34
Harm avoidance		57,6	13,3	59,8	11,6	0,51
	Anticipatory worry	63,3	13,8	61,7	12,5	0,64
	Fear of uncertainty	48,6	12,9	49,5	10,7	0,77
	Shyness	55,5	8,1	55,8	11,3	0,92
	Fatigability	52,8	13,0	60,2	11,7	0,03*
Reward dependency		53,1	6,8	48,6	10,2	0,11
	Sentimentality	57,6	7,5	54,6	9,8	0,26
	Openness to warm communication	53,9	8,4	49,2	11,2	0,12
	Attachment	48,8	12,8	45,6	11,1	0,32
	Dependence	47,3	6,9	46,5	10,7	0,78
Persistence		51,3	14,4	47,6	11,5	0,27
	Eagerness of effort	52,7	10,5	49,8	9,1	0,26
	Work hardened	46,9	16,7	45,5	12,1	0,69
	Ambitious	52,6	12,5	51,4	10,4	0,70
	Perfectionist	51,3	12,6	46,2	11,0	0,11
Character						
Self-directedness		34,7	10,8	34,7	10,7	1,00
	Responsibility	36,1	13,0	33,8	13,3	0,55
	Purposeful	42,1	15,3	38,0	14,5	0,32
	Resourcefulness	41,8	15,0	41,8	11,0	1,00
	Self-acceptance	42,5	11,4	44,6	8,8	0,41
	Enlightened second nature	33,5	11,8	35,0	10,7	0,64
Cooperativeness		43,2	11,0	40,8	11,2	0,44
	Social acceptance	47,3	7,8	44,3	11,3	0,32
	Empathy	49,2	9,5	46,3	9,8	0,28
	Helpfulness	45,2	9,1	42,3	10,6	0,33
	Compassion	42,1	14,8	44,9	14,7	0,50
	Pure-hearted conscience	43,5	10,7	40,5	10,9	0,32
Self-transcendence		56,0	13,6	55,3	11,5	0,83
	Self-forgetful	57,7	14,2	55,7	11,3	0,54
	Transpersonal identification	53,7	13,3	51,3	11,4	0,45
	Spiritual acceptance	52,3	9,8	55,6	11,0	0,28

Table 2. Clinical and Functional Variables at Admission in both groups

		Amphetamine (N=66; 13%)		Cocaine (N=432; 87%)		P value
Length of admission	Mean (SD)	20,5	(14,9)	16,5	(13,4)	0,03*
Clinical presentation	Suicide ideation/attempt	9,1%		20,8%		0,08
	Hallucinations/delusions	42,4%		35,6%		
	Other	48,5%		43,5%		
Personality disorder		28,8%		38,0%		0,15
Main drug of abuse	Stimulants	63,6%		64,1%		0,94
	Sedatives	36,4%		35,9%		
Cocaine SUD		56,1%		100,0%		<0,001
Cannabis SUD		54,5%		36,3%		<0,01
Alcohol SUD		43,9%		41,7%		0,73
Opioid SUD		13,6%		28,7%		<0,010*
Sedatives SUD		15,2%		19,7%		0,38
Amphetamines SUD		100,0%		0,0%		<0,001*
Hallucinogens SUD		4,5%		2,1%		0,22
Volatil SUD		1,5%		0,2%		0,13
Polydrug abuse		95,5%		77,5%		<0,001*

**The chi-square statistic is significant at level 0.05.*

Table 4. Historical data about age of drug use in both groups

		Amphetamine (N=66; 13%)		Cocaine (N=432; 87%)		P value
Age of first use of cocaine, years	*Mean (SD)*	18,43	(3,1)	20,60	(6,8)	0,028*
Age of first use of cannabis, years	*Mean (SD)*	14,11	(1,8)	15,59	(4,5)	0,031*
Age of first use of alcohol years	*Mean (SD)*	13,76	(2,8)	15,06	(3,5)	0,011*
Age of first use of opioid, years	*Mean (SD)*	22,29	(8,7)	20,24	(6,2)	0,122
Age of first use of sedatives, years	*Mean (SD)*	23,54	(6,5)	23,52	(7,9)	0,991
Age of first use of amphetamines, years	*Mean (SD)*	18,22	(4,4)	19,64	(5,7)	0,100
Age of first use of nicotine years	*Mean (SD)*	14,06	(3,3)	14,30	(3,2)	0,622
Age of regular use of cocaine, years	Mean (SD)	23,22	(7,3)	24,36	(8,1)	0,409
Age of regular use of cannabis, years	Mean (SD)	15,72	(3,0)	17,58	(6,1)	0,050
Age of regular use of alcohol, years	Mean (SD)	19,36	(6,0)	20,83	(7,2)	0,264
Age of regular use of opioid, years	Mean (SD)	20,45	(9,0)	20,31	(5,9)	0,940
Age of regular use of sedatives, years	Mean (SD)	23,42	(7,4)	24,63	(9,1)	0,578
Age of regular use of amphetamines, years	Mean (SD)	19,42	(4,6)	23,77	(9,3)	0,002*
Age of regular use of nicotine years	Mean (SD)	15,02	(3,2)	15,22	(3,4)	0,710

**The chi-square statistic is significant at level 05.*

Conclusions

Our data show that Amphetamine users seem to have lower clinical severity at admission, but higher comorbidity and severity as a comprehensive issue in relation of cocaine abusers in a dually diagnosed patients sample.

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INAD Institut de Neuropsiquiatria i Addicions

Parc de Salut MAR Barcelona