Canadian Network for Bipolar Disorder (CAN-BD): Results from an Observational Study

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INTRODUCTION

The Canadian Network for Bipolar Disorder (CAN-BD) began collecting prospective patient data in the Spring of 2002, tracking clinical outcomes, treatment patterns, quality of life and resource utilization of bipolar patients treated at 14 centres across Canada. The purpose of this study is to assess the effectiveness of various treatment interventions on symptomatic and functional outcome in patients with bipolar disorder. Here we present selected data analysed as of October 2003.

METHOD

Patients diagnosed with bipolar I/II disorder, meeting criteria for a mood episode and a change in treatment within the 3 months prior to enrollment, were eligible. Baseline data collection included demographics, clinical/medical history, psychiatric medications and symptom rating scales. Patients continued to be managed under conditions of routine clinical practice and scale assessments were administered at least every 3 months. Data was collected using a computer database designed for psychiatric disorders; supplemented with paper CRFs and monthly patient diaries.

RESULTS

As of October 2003, 191 patients were available for analysis, however the number of patients contributing to each parameter varies.

The majority of patients are female and although well educated, this patient population suffers from high under/unemployment levels and low household incomes (Table 1).

Type I bipolar disorder constitutes 62% of cases reporting a diagnosis, and 80% of all patients report a family history of mental health issues. Suicidality is found in close to half of the study subjects (Table 2).

Bipolar II patients experienced psychiatric admissions at an earlier age versus Type I (18 vs. 29 yr.) but were professionally diagnosed much later in life (40 vs. 35 yr.). Professional diagnosis for both bipolar types lagged dramatically when compared to age of onset of first symptoms. As expected, depressive and hypomanic episiodes were more prevalent in Type II patients ($p < 0.05$). Table 3.

Figures 1 through 5 describe the findings from the following symptom rating scales: YMRS, MADRS, HAMD-21and CGI.

Figures 1 through 3 indicate that there is a predominance of depressive symptoms over time in both diagnostic categories. However, the average HAMD21 and MADRS scores improved over time in bipolar type II patients.

CONCLUSION

Patients with bipolar disorder are negatively impacted by their family and personal history. Type II patients experience a longer course of illness suggesting that they are being under diagnosed and under-treated. Depressive symptoms are more persistent and difficult to treat than the hypomanic/manic symptoms in both subtypes of the illness.

Table 1. Demographic characteristics of patients

Demographic (N=reporting)	N (%)
Gender (N = 191)	
Female	106 (56)
Male	60 (31)
Missing	25 (13)
Age (mean ± SD) 43.9±12.8	
Marital Status (N = 166)	
Married	47 (28)
Unmarried	49 (30)
Separated/Divorced	48 (29)
Other	22 (13)
Employment Status (N = 166)	
Employed Full-time	49 (30)
Employed Part-time	23 (14)
Unemployed	35 (21)
Retired	14 (8)
Other	45 (27)
Highest Level of Education (N = 163)	
High school or less	46 (28)
College or University attended	117 (72)
Household Income (per year) (N = 182)	
Less than $40,000	97 (53)
$40,000 - $69,999	49 (27)
$70,000 - $99,999	21 (12)
Above $100,000	15 (8)

Table 2. Clinical characteristics of patients

Clinical Characteristic (N = reporting)	N (%)
Diagnosis (N = 166)	
BD Type I	102 (62)
BD Type II	58 (35)
Missing	6 (4)
Family History	
Mental Health	154 (80)
Alcohol abuse	100 (52)
Other substance abuse	28 (15)
Diabetes	68 (35)
CVS	83 (43)
Physical abuse (N = 180)	
Yes	49 (27)
No	131 (73)
Emotional abuse (N = 179)	
Yes	96 (54)
No	83 (46)
History of Suicidality (N = 180)	
Yes	73 (41)
No	107 (59)

Table 3. Comparison of patient history by bipolar disorder type

Clinical Characteristic	Bipolar I (Mean ± SD	Bipolar II (Mean ± SD	P value
Age of first hypo/manic symptoms	24 ± 14	21 ± 13	NS*
Age of first depressive symptoms	21 ± 13	18 ± 10	NS
Age of first psychiatric admission	29 ± 16	18 ± 20	P < 0.05
Age of professional diagnosis of BD	35 ± 13	40 ± 11	P < 0.05
Hospital admissions in the past two years for BD	1.0 ± 1.3	0.4 ± 0.9	P < 0.05
Depressive episodes in 2 years prior to enrolment	1.7 ± 2.5	6.8 ± 15.5	P < 0.05
Manic episodes in 2 years prior to enrolment	0.9 ± 1.2	0	P < 0.05
Hypomanic episodes in 2 years prior to enrolment	1.6 ± 5.1	7.1 ± 15.6	P < 0.05

* NS = Not statistically different

Figure 1. Young Mania Rating Scale by diagnosis

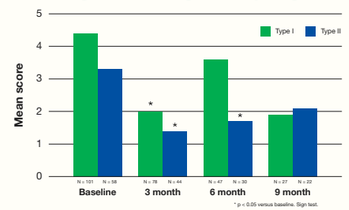

Figure 2. Montgomery-Asberg Depression Rating Scale by diagnosis

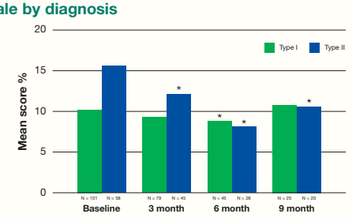

Figure 3. Hamilton Depression Rating Scale-21 by diagnosis

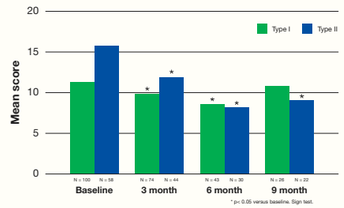

Figure 4. Clinical Global Impression – Type I

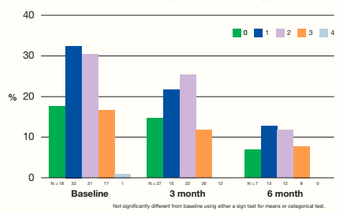
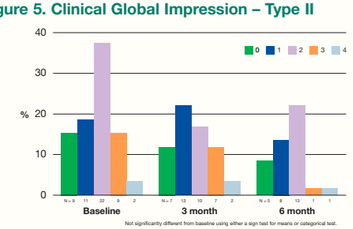
Figure 5. Clinical Global Impression – Type II