



Change in prevalence of Metabolic Parameters in patients with Psychotic Illness

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Introduction

- Patients with schizophrenia are at high risk of premature all-cause mortality compared to the general population, with cardiovascular diseases being one of the most common causes
- Metabolic Syndrome indicates a preclinical state for the development of cardiovascular diseases
- The prevalence of the Metabolic Syndrome in psychotic illness receiving medications ranges from 5.7%-69% and between 4%-26% in drug naïve patients
- However, most of the data is in the form of cross-sectional studies
- Limited number of longitudinal studies suggest an overall increment in prevalence of Metabolic Syndrome in patients with schizophrenia, ranging from 5.3% to 23.2%
- The available longitudinal studies have many limitations in small sample sizes and shorter duration of follow-up
- There are very few longitudinal studies from India
- The current study aimed to evaluate the change in the prevalence of metabolic parameters among patients with schizophrenia

Materials and Methods

- A prospective cohort study design was employed
- The study sample was recruited from the patient population attending the outpatient/inpatient services of the Department of Psychiatry, PGIMER Chandigarh after obtaining written informed consent
- Metabolic Syndrome was assessed using the Consensus Criteria given by International Diabetes Federation

Materials and Methods

- 109 patients having a diagnosis of psychotic disorders (F20-F29) (As per International Classification of Diseases-10), age ≥ 18 years at the time of follow-up assessment, with availability of data for metabolic parameters at least 1 year prior to the current evaluation, were recruited after obtaining written informed consent

Results

- After a mean follow-up duration of 3.72 years, the prevalence of Metabolic Syndrome increased from around 1/3rd to 1/2 patients from baseline to current assessment

Table

Variable	Baseline	Current	Paired t test value (p-value)/ Chi square test (p value)
Weight (in kg)	68.26 (15.3)	74.58 (14.9)	5.945 (<0.001***)
BMI (in kg/m ²)	25.30 (5.38)	27.65 (5.21)	5.811 (<0.001***)
BMI ≥ 25 kg/m ²	51 (46.8%)	76 (69.7%)	11.789 (0.001**)
WC (in cm)	91.82 (13.0)	98.96 (12.2)	6.738 (<0.001***)
FBS (mg/dl)	94.26 (12.7)	103.95 (12.6)	2.406 (0.018*)
Hba1c	5.50 (0.65)	5.64 (0.80)	0.517 (<0.001***)
Abnormal WC	70 (64.2%)	94 (86.2%)	14.179 (<0.001***)
Diabetes mellitus	4 (3.7%)	17 (15.6%)	8.905 (0.003**)
Hypertension	0	6 (5.5%)	4.285 (0.038*)^^
Prevalence of dyslipidemia	18 (16.5%)	33 (30.3%)	5.759 (0.016*)
No. of MetS criteria fulfilled	1.98 (1.20)	2.45 (1.11)	3.383 (0.001**)
MetS- Present	38 (34.9%)	53(51.4%)	4.244 (0.039*)

Results

- There was a significant increase in weight, BMI, waist circumference, fasting blood glucose, HbA_{1c}, prevalence of DM II, hypertension and dyslipidaemia

Conclusions

- The prevalence of metabolic abnormalities increases significantly over time in patients with psychotic disorders
- Hence, there is a need to regularly monitor the metabolic parameters and address the same, to reduce the cardiovascular morbidity and mortality in patients with psychosis

References

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