

ABSTRACT

Background/Objective:

Antipsychotic Polypharmacy has been widely used in treatment of patients with chronic mental illness. Evidence supporting its use is limited. The purpose of the study was to evaluate the effect of reduction of Antipsychotic Polypharmacy and its usefulness as a treatment.

Method:

To objectively measure the impact of this change we used PANSS scale (Positive and Negative Symptoms of Schizophrenia). Patient's laboratory metabolic parameters as well as weigh, height and waist circumference were obtained and BMI calculated, number of hospitalization 6 m before and after the switch were noted. Paired t-tests and paired Wilcoxon signed ranks tests were used.

Results:

Psychiatric symptoms and metabolic indicators were evaluated at baseline and 6 months after being taken off Polypharmacy. 23 patients were interviewed at baseline and 18 of these were interviewed 6 m after being taken off Polypharmacy. Results showed there were no changes in psychiatric symptoms, as assessed with the PANSS, after being taken off Polypharmacy. Results also showed that waist circumference was significantly smaller after being taken off Polypharmacy (M = 40.53, SD = 6.74) than at baseline (M = 42.08, SD = 6.43), t (17) = 3.29, p = .004 and that triglyceride levels were marginally significantly lower after being taken off Polypharmacy (M = 134.13, SD = 68.98) than at baseline (M = 154.13, SD = 69.60), t (14) = 1.99, p = .07.

Conclusion:

Our results are showing that Antipsychotic Polypharmacy is avoidable and in many cases unnecessary practice. They are consistent with the scientific evidence, practice guidelines and current recommendations. More research is needed.

METHODS

24 out of the 44 patients on Antipsychotic Polypharmacy regimens have been switched to one antipsychotic.

Their age was 19-61, 12 men, and 12 women. 19 of them had diagnosis of Schizophrenia or Schizoaffective disorder, 3 of them Bipolar disorder, 1 of them OCD and Tourette's disorder and 1 with Mood disorder NOS. Patients have been on 2 antipsychotics for at least 2 m prior to the switch and have been stable (no hospitalization for at least 2 m).

18 of the patients were followed 6 m after the switch. 1 of the patients could not tolerate the switch and was restarted on two antipsychotics, 5 others were discharged from the program and followed with their care elsewhere.

To objectively measure the impact of this change we used PANSS scale (Positive and Negative Symptoms of Schizophrenia). Blood work was obtained from patients at the time of the switch and 6 m after measuring Lipid profiles and Hemoglobin A1 C. Their weigh, height and waist circumference were taken and BMI calculated, number of hospitalization 6 m before and after the switch were noted. Consent was taken from all of them. Comparison of the scores on the PANSS scale, the results of all the metabolic parameters and # of hospitalizations before and after the switch were made.

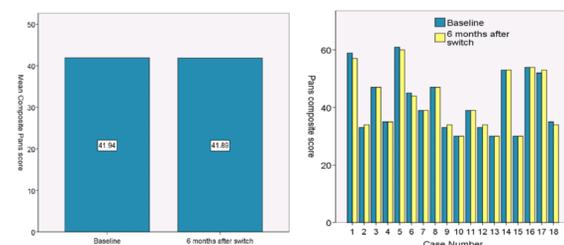
RESULTS

23 patients were interviewed at baseline and 18 of these were interviewed 6 m after being taken off Polypharmacy. Paired t-tests and paired Wilcoxon signed ranks tests were used to compare differences in psychiatric symptoms and metabolic parameters from time 1 to time 2. Results showed no changes in psychiatric symptoms, as assessed with PANSS, after being taken off Polypharmacy. Results also showed that waist circumference was significantly smaller after being taken off Polypharmacy (M = 40.53, SD = 6.74) than at baseline (M = 42.08, SD = 6.43), t (17) = 3.29, p = .004 and that triglyceride levels were marginally significantly lower after being taken off Polypharmacy (M = 134.13, SD = 68.98) than at baseline (M = 154.13, SD = 69.60), t (14) = 1.99, p = .07. Though there were no other significant differences on the metabolic indicators from time 1 to time 2, the means on most of the metabolic indicators showed improvements after patients were taken off Polypharmacy. The same pattern of results was found from analyses using nonparametric tests. Additionally, among the 18 that were followed at both time points there were 4 hospitalizations for 6 m prior to the switch, and one hospitalization within 6 m after the switch. Parametric and non-parametric tests both revealed that this was a non-significant difference in hospitalizations before and after the change in medication. Antipsychotic Polypharmacy was reduced from 31% to 23 % when the project was completed.

Table of Means
BMI, weight, HGA1C, cholesterol, HDL, and LDL did not change significantly after the medication switch.

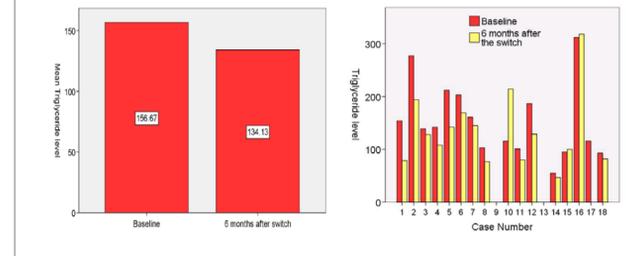
	Baseline	6 months after switch
BMI	M = 30.11 STD = 6.21 N = 18	M = 29.55 Std = 6.85 N = 18
Weight	M = 198.56 STD = 48.95 N = 18	M = 195.67 STD = 54.69 N = 18
HGA1C	M = 5.71 STD = .71 N = 16	M = 5.68 STD = .59 N = 15
Cholesterol	M = 174.88 STD = 37.19 N = 16	M = 175.05 STD = 38.90 N = 15
HDL	M = 51.88 STD = 11.81 N = 16	M = 49.27 STD = 11.30 N = 15
LDL	M = 92.38 STD = 28.32 N = 16	M = 99.73 STD = 30.37 N = 15

The Mean Total PANSS Score Did not Change Significantly After the Medication Switch

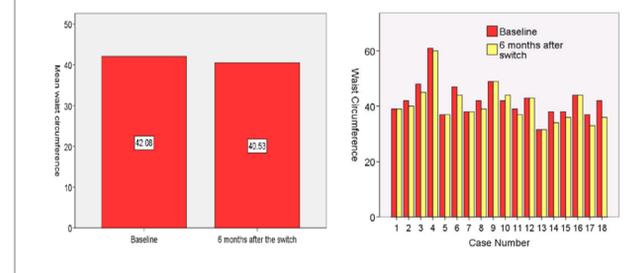


RESULTS (Cont)

Triglyceride levels decreased after the medication switch [t (14) = 1.99, p = .07; Wilcoxon = -2.39, p = .02]. The mean decrease was 22.53, SD = 43.77.



There was a significant decrease in waist circumference after the medication switch [t (17) = 3.29, p = .004; Wilcoxon = -2.64, p = .008]. The mean decrease in was 1.56 inches, SD = 2.01 inches



DISCUSSION

There have been number of concerns that have been raised due to this practice. Antipsychotic Polypharmacy has been associated with increased side effects, drug interactions, decline in patient's adherence and increased cost of treatment.

The Randomized Controlled Trials and other studies in treatment resistant patients show mixed results and increase in side effects with Antipsychotic Polypharmacy. The control studies were the ones that are more likely to show no better effect of Antipsychotic Polypharmacy.

In patients without resistance to monotherapy research does not support the use of Antipsychotic Polypharmacy. Almost all studies show no difference in improving clinical outcome. There were more side effects reported.

This study was one of the few done to evaluate the effect of reduction of Antipsychotic polypharmacy. All patients besides one remained psychiatrically stable and did not change much from their baseline. Their metabolic parameters improved in general although only the improvement of their waist circumference and triglyceride levels was statistically significant.

Limitations

Open label, no control group

Small number of people-24, only 18 were followed

Did not measure all side effects

CONCLUSION

Recommend turning to Antipsychotic Polypharmacy only when multiple monotherapy trials have failed, including Clozapine. There are a few clinically appropriate reasons to justify the use of Antipsychotic Polypharmacy in clinical practice.

1. History of multiple unsuccessful trials of monotherapy
2. Augmentation of Clozapine
3. Used in the process of cross taper and discontinuation as an outpatient because of the short time of inpatient hospital stay. More research is needed.

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