

World Congress on

Nutrition and Obesity Prevention Source

November 16-18, 2017, Barcelona, Spain

Changes of Body Weight and Metabolic Syndrome According to the use of Psychiatric Medication

**Kwanghun Lee¹, Sang-Yeol Lee², Moon-Doo Kim³, Jeong Seok Seo⁴,
Jong-Hyun Jeong⁵, Kyung Joon Min⁶ and Jung Goo Lee, MD, PhD⁷**

¹Department of Neuropsychiatry, School of Medicine, Dongguk University, Gyeongju, Korea

²Department of Psychiatry, Wonkwang University Hospital, Wonkwang University School of Medicine, Iksan, Korea

³Department of Psychiatry, Jeju National University School of Medicine, Jeju, Korea

⁴Department of Psychiatry, School of Medicine, Konkuk University, Chungju, Korea

⁵Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul, Korea

⁶Department of Psychiatry, College of Medicine, Chung-Ang University, Seoul, Korea

⁷Department of Psychiatry, Haeundae Paik Hospital, College of Medicine, Inje University, Busan, Korea

Object: This study explored the development of metabolic syndrome, changes in body weight and metabolic syndrome parameters (waist circumference, serum glucose and lipids, blood pressure), and effects of psychotropic agents in psychiatric in patients being treated with psychotropic agents

Methods: In all, 146 patients who had been admitted to a psychiatric isolated ward for more than 1 month between August 2014 and May 2016 were included in this study. During hospitalization, levels of triglyceride, high density lipoprotein-cholesterol(HDL), low density lipoprotein-cholesterol, and serum glucose, and blood pressure, height, body weight, and waist circumference were regularly measured. For obtaining data on laboratory tests, physical examination and demographic and clinical characteristics, we reviewed patients' medical records.

Results: After using psychotropic agents for 3 months, body mass index increased significantly and HDL levels decreased significantly. Of 119 patients without metabolic syndrome at baseline, 15 (12.61%) patients developed a this syndrome after 3 months. Among psychotropic agents, quetiapine most largely increased the number of patients who meet the criteria for metabolic syndrome (17.9%), and this change was significantly larger than that of aripiprazole ($p=0.031$). Carbamazepine significantly increased waist circumference. Duloxetine and lamotrigine significantly increased triglyceride levels. Olanzapine, aripiprazole, mirtazapine, duloxetine and valproic acid significantly decreased HDL levels. Further, olanzapine and valproic acid significantly increased body mass index. Fluoxetine significantly decreased body mass index.

Conclusion: The results of this study indicate that at least 1 in 10 patients using psychotropic agents develop metabolic syndrome within a relatively short time; this finding emphasizes the importance of early diagnosis and treatment. Because abnormality of lipid parameters was prominent in early phase of treatment, clinicians should monitor these levels carefully. In addition, some psychotropic agents could affect body weight and metabolic syndrome parameters and thus clinicians should be aware of this changes in patients using psychotropic agents. Main limitation of this study is high drop-out rate (74%), and this could make the result underestimate.