

EVALUATION OF WEIGHT, BLOOD LIPIDS, CRP, HEMOGRAM VALUES IN THE FIRST 4 WEEKS OF PATIENTS WHO STARTED CLOZAPINE TREATMENT: A RETROSPECTIVE STUDY

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BACKGROUND AND AIM: Clozapine is a gold standard second generation antipsychotic in treatment resistant schizophrenia that has a limited usage due to side effects such as weight gain, dyslipidemia, impaired glucose metabolism, tachycardia, sedation, agranulocytosis and myocarditis. Metabolic side effects, which increase cardiovascular risk and decrease quality of life, increase mortality and morbidity are important in clinical practice. In our study, we aimed to determine the predictors of metabolic side effects such as weight gain and dyslipidemia in the first 4 weeks of treatment in patients started on clozapine.

METHODS: In our study, the records of 45 patients who were hospitalized and started on clozapine were evaluated retrospectively. Weight, body mass index, blood lipids, fasting blood sugar, hemogram in the 0th and 4th weeks were compared. The study protocol was approved by the ethics committee (approval number: 2024-TBEK 2024/11-09).

RESULTS: The mean age of 45 patients included in our study was 38,13 years (77.7% male, 22.2% female). The mean clozapine dose reached at the end of week 4 was 318,33 mg/

day. Statistically significant changes between week 0th and 4th were observed in eosinophils ($p<0.001$), weight ($p<0.001$), body mass index ($p<0.001$), triglycerides ($p=0.002$), very low density lipoprotein ($p=0.002$), alanine aminotransferase ($p=0.027$) and total cholesterol ($p=0.004$). As a result of ANCOVA analysis, body mass index ($p<0.001$ $\eta^2=0.95$) and white blood cell count ($p=0.01$ $\eta^2=0.17$) on the week 0 are effective on body mass index on week 4.

CONCLUSIONS: In our study, weight gain in patients using clozapine was found to be associated with initial WBC and BMI. These markers can be considered as predictors of weight gain in patients starting clozapine. Our study provides enlightening results about the metabolic side effects when starting clozapine treatment. Long-term follow-up studies with larger samples are needed to predict side effects in patients starting clozapine treatment, to determine which patients should be more careful, and thus to better manage side effects.

Keywords: Antipsychotic, clozapine, weight gain