

Nor-clozapine Plasma Concentration/daily Clozapine Dose Ratio (Ncz/d): an Index of Response to Clozapine Treatment.

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The present study investigated relationships between plasma concentrations of clozapine (CZ) and nor-clozapine (NCZ), clozapine metabolic index (NCZ/CZ), nor-clozapine plasma concentration/daily clozapine dose ratio (NCZ/D) and response to clozapine treatment in schizophrenic patients. Twelve treatment-resistant schizophrenic patients, recruited for this study, were treated with clozapine for six weeks.

Our sample was composed by 4 males and 8 females aged 35-52 years recruited at the Department of Psychiatry, University of Naples SUN. The diagnosis of schizophrenia was established according to ICD-10 criteria (9 paranoid type and 3 residual type) and with history of illness from more than ten years, resistant to treatments with other typical and atypical antipsychotics. All the patients in this study were treated with clozapine, valproic acid, lorazepam or delorazepam.

Patient health improvement was assessed before (T0) and after six weeks of clozapine therapy (T6), using the Brief Psychiatric Rating Scale (BPRS). Plasmatic clozapine and nor-clozapine concentrations were determined by high-performance liquid chromatography (HPLC).

Analyses of variance (ANOVA) and χ^2 -test (SPSS 19) were used to find correlations between the different studied parameters and the BPRS scores. No significant correlations between CZ, NCZ, NCZ/CZ and clinical health improvement in BPRS scores among our schizophrenic patients were found; however, a significant correlation ($p < .0012$) was observed between NCZ/D and clinical response to clozapine treatment in our sample.