
Leukocytosis in Clozapine-treated Patients: a Sign of Loss of Response to the Antipsychotic

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Anecdotal evidence tends to suggest clozapine as a cause of leukocytosis in schizophrenic patients, however no conclusive evidence is available on this topic so far. Moreover, transient and persistent clozapine-related leukocytosis has received little attention in the literature. We report two clinical cases of two men, respectively 23 and 34 years old, affected by schizophrenia, showing persecutory and reference delusions, auditory hallucinations and aggressive behaviour. Both had been treated for several years with first and second generation antipsychotics, all at therapeutic doses, reporting only occasional ameliorations. In both patients the previous treatment was gradually tapered down and then discontinued, and clozapine was gradually introduced, at a dose of 200 mg/die in the first patient, and of 400 mg/die in the second one. After ten years of clinical compensation and without any abnormality of blood cell count, leukocytosis appeared in both cases. WBC and ANC counts ranged between 12.56×10^3 and $22.26 \times 10^3/\text{mm}^3$ and between 8.57×10^3 and $17.67 \times 10^3/\text{mm}^3$, respectively. When leukocytosis appeared, there was loss of response to clozapine and, consequently, psychopathological decompensation in both patients. Therefore a daily clozapine dose of 350 mg in the first patient and of 650 mg in the second one was reached within two weeks. No clinical amelioration was observed, but an increase in the previous WBC count was shown. Medical and hematological consultations found no evidence of systemic or myeloproliferative illness. These two clinical cases suggest that the onset of leukocytosis in clozapine-treated patients could be associated to loss of response to the antipsychotic.