

## ELECTROCARDIOGRAPHIC ALTERATIONS IN PATIENTS IN TREATMENT WITH CLOZAPINE

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**Objectives:** Cardiovascular side effects of antipsychotics are been studied both in typical and atypical antipsychotics but, in particular, with clozapine few systematic studies of these effects have been performed. In this study, we reviewed electrocardiographic (ECG) data from patients treated with clozapine.

**Methods:** Observational, retrospective study in our Clozapine Day Clinic from 2000 to 2008. We recluted 197 patients (70% men) with mean age  $31,75 \pm 9,0$  years who began treatment with clozapine. All of them had an electrocardiogram taken before starting treatment and after 18 weeks of follow-up. None suffered from heart diseases. QTc was evaluated by Bazett formula ( $QT / (R-R')^{1/2}$ ). Treatment prescribed was taken down and drug serum levels were detected. Statistical analysis was executed by SPSS 17.0.

**Results:** There was significant correlation between doses prescribed and levels of clozapine and norclozapine ( $r=.304$ ,  $p=.023$ ;  $r=.354$   $p=.007$ ), between levels of clozapine, norclozapine and QTc enlargement ( $r=.348$ ,  $p=.008$ ;  $r=.268$   $p=.046$ ) and between levels of clozapine, norclozapine and heart rate ( $r=.390$ ,  $p=.003$ ;  $r=.326$   $p=.014$ ). There were no differences between QTc and treatment with clozapine or other antipsychotic ( $p=0.902$ ), between sex or if polypharmacy existed. ECG alterations were a case of supraventricular extrasystoles, another of Wolf-Parkinson -White Syndrome and other inespecific alterations like repolarizations or left hypertrophy.

**Conclusion:** We did not find either major incidence on cardiological effects or significative QTc enlargement during treatment with clozapine in contrast to other antipsychotic previously prescribed. Therefore clozapine may be in the same cardiologic safety rank than other antipsychotics.