SOCIAL FUNCTIONING AND SCHIZOPHRENIA: FIRST GENERATION vs SECOND GENERATION LAI ANTI PSYCHOTICS

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Introduction
The deficit of social functioning is one of the basic diagnostic criteria for schizophrenia according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [1]. Moreover, operating deficits in schizophrenic patients are likely to be related to the symptoms and impairments this complex syndrome entails. Despite the difficulties in interpreting the pathophysiology of the disorder, therapy with antipsychotic drugs is currently the cornerstone of schizophrenia treatment [2].

With regard to this, since non-adherence to treatment has been a major issue with both first-generation and second-generation antipsychotics, Long Acting Injectable (LAI) antipsychotic formulations have been gradually introduced [3].

In order to assess the real impact of these formulations, we compared LAI antipsychotics to oral formulations, and first and second generation LAI antipsychotics in patients diagnosed with schizophrenia.

Methods
40 schizophrenic patients (80% males and 20% females), aged between 18 and 65 years (mean age: 44.7; SD: 9.24), in stable antipsychotic therapy for at least three months, have underwent a clinical and functional assessment through the use of Structured Clinical Interview for DSM (SCID I and II), Positive and Negative Syndrome Scale (PANSS) and Personal and Social Performance Scale (PSP).

Exclusion criteria were: moderate or severe mental retardation, neurological disease, history of alcoholism or substance abuse in the last six months and pregnancy.

The data were analyzed (SPSS version 22.0), using descriptive statistics; the Chi-square test (χ2) and Wilcoxon-Mann-Whitney were used for a qualitative comparison.

Results
Among the 40 schizophrenic patients tested, 20 were in treatment with oral antipsychotics (9 FGA and 11 SGA) and 20 with LAI antipsychotics (FGA 8 and 12 SGA).

The PSP scale did not reveal any statistically significant difference between patients taking oral therapy and patients treated with LAI therapy; on the contrary, LAI-SGA patients reported significantly higher scores than LAI-FGA patients (p < .001). (Figure 1)

The PANSS scale did not show any statistically significant difference between oral and LAI groups as well. Considering, specifically only the patients treated with LAI therapy, the LAI-SGA subgroup reported significantly lower values at the Negative Scale than LAI-FGA subgroup (p < .003). (Figure 2)

Conclusions
Although the advantages of LAI formulations in comparison to oral antipsychotics seem obvious from a theoretical point of view, from our research, as well as numerous other studies, emerged mixed results [4]. Moreover, the data analyzed showed a significant improvement with LAI-SGA compared to LAI-FGA for both negative symptoms and personal and social functioning.

Despite the improvement, however, social functioning is not the primary target of drug treatments, and it is likely that LAI may lead to an improvement of social functioning levels, as some recent studies seem to show, probably in relation to the improvement of negative symptoms [5].

In light of the above, although for many years the primary focus of the pharmacological treatment of schizophrenic patients has been the reduction of symptoms and their direct consequences, to date, with the use of SGA therapies and their LAI formulations, the achievement of the best possible symptoms control, together with the best personal and social functioning level, should be considered as standard objectives of early treatment and long-term schizophrenia.

References