Positive and Negative Symptoms of Schizophrenia in Prediction Treatment Response

Grbesa G.
Neurorelax Psychiatric Clinic, Nis
G-mail: gaga.grbesa@gmail.com

Psychometrics in clinical studies enables the assessment of the success of medications over the course of the study.

In clinical trial procedures, psychometrics is the only method that is statistically processed and is a crucial indicator of the success of the medication used. Therefore, assessing the psychometric examination process itself is of great importance for the prediction of further successful administration of the medication.

For clinical studies researchers, schizophrenia is a chronic, severe disesase with psychotic symptoms and the goal of treatment is to achieve the maximum reduction in positive and negative symptoms.

For the assessment of efficiency, the following scales are used as basic ones: Positive and Negative Syndrome Scale (PANSS) by Kay, 1987 and Clinical Global Impression of Improvement (CGI-I) Guy 1976.

Studies on the validity of psychiatric symptom scale show that CGI-S and PANSS are correlated and exhibit substantial agreement in detecting change. (Rabinowitz 2006).

When processing efficacy data, the standard clinical trial procedure involves Change from baseline in PANSS total score (- 30%) and CGI-I score 2 (much improved) after fourth visit.

Aim:

During the studies, it was observed that the PANSS and CGI-I scales were not always correlated and that the values on the scales do not record complementary values at all test stages.

Investigation of the correlation of PANSS and CGI psychometric scales during clinical studies.

To investigate the complementarity of PANSS and CGI-I psychometric scales during the first, second, fourth and sixth week of medication efficacy testing.

Objectives:

The trial included 64 patients diagnosed with acute schizophrenia. The subjects participated in two studies (involving 34 and 28 patients) on assessment of the efficacy and tolerability of a nonspecific neuroleptic with adjuvant therapy.

Method:

The concordance of PANSS and CGI ratings was tested at baseline and after one, two, four and six weeks. The assessments were performed by educated raters including educated medical staff and family members.

Results:

The correlation between PANSS and SGI in the second week was statistically significant to the value of 99%. In the fourth week, the correlation was 95%. The values after the fourth week fell to 52% of the match. The PANSS scale decreased after the fourth week to 30% in relation to the initial value while the CGI scale was decreased to 60%.

Discussion:

The concordance of PANSS and CGI scales shows that the functional recovery of patients is considerably higher than that of the patient's symptomatic status. Greater correlative values at the level of statistical significance (> 0.03) are observed in comparative values of positive symptoms and scales on the CGI scale after the fourth week. The decrease in positive signs in the acute stage of the disease on the PANSS scale is recorded as the predictive value of the success of therapeutic response. (Works presenting studies with chronic forms of schizophrenia report that improvements in CGI - I occur when scores on a group of negative symptoms decline).

The differences obtained by examining the concordance of both scales come from different methodologies on which their construction is based. While the PANSS scale is largely determined by the prescribed questions, the CGI - I is based on the overall clinical experience of the rater. This leads to the differences observed during the examination. The slight shifts in the intensity of positive symptoms on the PANSS scale and the considerable level of improvement on the CGI scale suggest that functional improvements in schizophrenia have not been sufficiently defined and, therefore, they are still insufficiently accessible to psychometrics.

Literature:
Rabinowitz J, at. All. "To what extent do the PANSS and CGI-S overlap"? J Clinical Psychopharmacol. Jun;26(3):303–307, 2006
Stanley R. at all. The positive and Negative Syndrome Scale (PANSS) for Schizophrenia, Shizophreniabuliten,vol.13. NO 2. 1987