Facial Emotion Recognition and Disorganization in Subjects with Schizophrenia and Alcohol, Substance Use Disorder


1PhD Program in Neuroscience - Department of Surgery and Translational Medicine, University of Milano Bicocca, Monza (MB), Italy ; 2Department of Mental Health, Azienda Ospedaliera San Gerardo - Monza, Monza (MB), Italy ; 3Department of Psychology, University of Milano Bicocca, Monza (MB), Italy

Introduction: Schizophrenia (SKZ) is a disease characterized by positive and negative symptoms, thoughts and behaviour disorganization with a progressive socio-cognitive impairment; deficits in facial emotion recognition (FER) represent one of the most serious problems linked to interpersonal problems. In addition, these patients have often comorbid condition of alcohol and substances abuse.

Objectives: to compare the ability of FER in patients with SKZ using alcohol and/or substances (SKZ+SUD) compared to schizophrenics without SUD (SUD-SKZ).

Methods: we enrolled 53 subjects (M=40, F=13) with a DSM-IV diagnosis of SKZ (SCID I). The sample was divided according to alcohol and/or substance abuse (AUS and DUS) into two groups, compared for socio-demographic and clinic characteristics (PANSS and Bell model). We analyzed the association between abuse condition and Ekman test performance.

Results: SKZ+SUD (n=20; M=16, F=4) and SKZ-SUD (n=33; M=24, F=9) show a statistically significant age difference with a mean (SD) of 38.4 years (10.5) and 46.0 years (8.7) respectively (p=0.006). SKZ+SUD Ekman test score (mean=43.1, SD=6.9) was statistically higher (p=0.006) than SKZ-SUD (mean=34.6, SD=12.0). The different performance was more evident in comparison with poly-abusers (44.9±7.05 vs 12.04±34.6; p=0.002). We further noticed the role of disorganization as a mediator of the relationship between abuse and FER score (p=0.017): the proportion of the effect of abuse on Ekman test score was 48%.

Conclusions: In subjects with SKZ, FER seems to be less impaired in abusers than non-abusers. We also showed an important role of thoughts and behavioral disorganization as a mediator between SKZ+SUD and FER.