



Centre de Neurosciences Psychiatriques

CNP SEMINARS

ANNOUNCEMENT

Friday, January 24, 2020, 11:00 – 12:00

Nonverbal communication deficits in schizophrenia – pathobiology and clinical challenges

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Nonverbal communication is critical for social interaction and community functioning. During social interaction, we usually use more than one communication channel concurrently, such as facial expressions, hand gestures, interpersonal distance or prosody. Individuals with schizophrenia are impaired in using and decoding this nonverbal information. One example are hand gestures. Half of the patients with schizophrenia share faulty use of gestures, which is linked to poor perception and interpretation of gesture use by encounters. Thus, patients demonstrate a generalized nonverbal communication deficits. Poor gesture use is also linked to poor functional outcome in the course of schizophrenia. Furthermore, brain imaging studies suggest that the responsible brain network is disrupted at the structural and functional level. Pilot studies of our group suggest that either 10 sessions of group psychotherapy or single sessions of repetitive transcranial magnetic stimulation may ameliorate gesture deficits in schizophrenia. Thus, in the future, patients might be able to overcome this gesture deficit. Another example of nonverbal communication deficits is interpersonal distance, which is spontaneously slightly increased in schizophrenia. However, a subgroup of patients with current feelings of paranoid threat even need 2.5 fold of the normal interpersonal distance, which aids the detection of paranoid subjects with high specificity and sensitivity. A current study is exploring the link between this territorial behavior, paranoid emotions, and stress. Finally, slowed movements may impair nonverbal communication. Psychomotor slowing is present in both schizophrenia and depression. Neuroimaging suggests an association with aberrant neural activity in premotor cortical areas. In a pilot study, we found that daily inhibitory transcranial magnetic stimulation of the supplementary motor area may ameliorate psychomotor slowing effectively. In summary, nonverbal communication deficits in psychosis have strong impact on functioning and outcome. The deficits are linked to specific cerebral dysfunctions, some of which might be modulated with noninvasive brain stimulation. The addition of brain stimulation seems to be relevant for schizophrenia treatment efforts in the future.

Invited by Kim Do Cuénod

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Related publications

Single Session Transcranial Magnetic Stimulation Ameliorates Hand Gesture Deficits in Schizophrenia Sebastian Walther*, 1, Maribel Kunz1, Manuela Müller1, Caroline Zürcher1, Irena Vladimirova1, Hanta Bachofner1, Konstantin A. Scherer1, Niluja Nadesalingam1, Katharina Stegmayer1, Stephan Bohlhalter2, and Petra V. Vihar1 1Translational Research Center, University Hospital of Psychiatry, University of Bern, Switzerland; 2Neurocenter, Luzerner Kantonsspital, Luzern, Switzerland.

Nonverbal Social Communication and Gesture Control in Schizophrenia Sebastian Walther*, 1, Katharina Stegmayer1, Jeanne Sulzbacher1, Tim Vanbellingen2,3, René Müri2,4, Werner Strik1, and Stephan Bohlhalter2,3 1University Hospital of Psychiatry, Bern, Switzerland; 2Department of Clinical Research, University Hospital, Inselspital, Bern, Switzerland; 3Neurology and Neurorehabilitation Center, Kantonsspital Luzern, Luzern, Switzerland; 4Department of Neurology, University Hospital, Inselspital, Bern, Switzerland

We Should Take a Closer Look at Gestures Sebastian Walther*, 1 and Vijay A. Mittal2 1Translational Research Center, University Hospital of Psychiatry, University of Bern, Bern, Switzerland; 2Department of Psychology, Department of Psychiatry, Northwestern University, Evanston, IL