

**Introduction** Inconsistent data showed that erythrocyte glutathione peroxidase (GPx) activity in schizophrenics is altered.

**Aim** The aim of this study was to evaluate whether some of the demographic, clinical and therapeutic factors had any significant impact on erythrocyte GPx activity in patients with schizophrenia.

**Methods** This study included 68 schizophrenic patients and 59 healthy individuals. GPx activity was tested related to patient age, gender, heredity, the onset of the disease, the duration of the disease, the number of episodes, PANSS scores and drug treatment. GPx activity was determined in erythrocyte hemolysates by Ransel commercially available test.

**Results** Erythrocyte GPx activity was significantly lower in patients with schizophrenia than in controls. Male patients had significantly lower GPx activity in comparison with those in female ones. Heredity negative patients showed significantly lower enzyme activity compared to control values. Significantly lower GPx activity was obtained independently of the onset of the disease. The patient group having more than one psychotic episode also showed significantly lower GPx activity compared to the control group. The disease duration of more than 1 year caused a significant decrease in enzyme activity. There was a significant difference in GPx activity between patients with different PANSS scores. In patients treated with second generation antipsychotics and in those treated with both first and second generation antipsychotics, GPx activity was significantly lower than in controls.

**Conclusion** This study shows that the low erythrocyte GPx activity in schizophrenics depends on patient gender, the number of episodes, disease duration and drug treatment.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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#### EW508

### Exploration of the link between clinical judgments and subjective perceptions of clinical change in patients treated for schizophrenia

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**Introduction** Subjective perceptions of clinical change in patients with schizophrenia are often not congruent to the objective evidence of the same, especially since a lack of insight is part of the symptomatology. However, the exploration of the relationship between clinical judgments from mental health experts and the patients' perception of symptom change is fairly understudied.

**Aims and objectives** This study aimed to investigate the performance of the Positive and Negative Syndrome Scale (PANSS) as a tool for clinical outcome monitoring in schizophrenia in concordance with the change of self-reported psychopathology assessed with the Frankfurt Complaint Questionnaire (FCQ) in patients with a schizophrenia.

**Methods** A consecutive sample of patients admitted to a Swiss psychiatric hospital for schizophrenia was assessed with the FCQ at admission and discharge. The PANSS was rated by the responsible clinicians at admission and discharge. Complete data of admission and discharge were available from approximately 60 cases. Reliable change index (RCI) was calculated to determine a clinically meaningful change based on the PANSS scores. Logistic regression models were conducted to explore the link between RCI levels and the change of self-reported perceptions of psychopathology.

**Results and conclusions** Our study found no relationship between the change of PANSS and FCQ from admission to discharge in a sample of patients treated for schizophrenia. Therefore, our findings provide evidence for a large discrepancy between the observed clinical severity and the subjective perception of symptoms in individuals with schizophrenia.

**Keywords** Positive and Negative Syndrome Scale; Frankfurt Complain Questionnaire; Schizophrenia; Outcome monitoring; Subjective perception

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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#### EW510

### Anti-DNA antibodies in the blood of patients with schizophrenia possess DNA-hydrolyzing activity

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**Introduction** Autoantibodies (Abs) to different neuronal receptors and DNA were detected in the blood of patients with schizophrenia. Abs hydrolyzing DNA were detected in pool of polyclonal autoantibodies in autoimmune and infectious diseases, such catalytic Abs were named abzymes.

**Objectives** To investigate the level of anti-DNA antibodies and DNA-hydrolyzing activity of IgG from the serum of patients with schizophrenia depending on leading clinical symptoms.

**Aims** – To measure the concentration of anti-DNA Abs in serum of patients with leading positive and negative symptoms; – to determine DNA-hydrolyzing activity of IgG.

**Methods** In our study, 51 patients were included. The levels of antiDNA Abs were determined using ELISA. DNA-hydrolyzing activity was detected as the level(%) of supercoiled pBluescript DNA transition in circular and linear forms. Statistical analysis was performed in "Statistica 9.0".

**Results** Anti-DNA Abs of patients with schizophrenia not only bind DNA, but quite efficiently hydrolyze the substrate. IgG of patient with schizophrenia were shown to possess DNA hydrolyzing activity. It should be noted that DNAase activity of IgG in patients with schizophrenia with a negative symptoms was significantly higher, than in patients with positive symptoms (Table 1).

**Conclusions** The data show a correlation with the level of DNase activity and leading symptoms of patients with schizophrenia.

**Table 1** Concentration of anti-DNA Abs and relative hydrolysis of DNA in different groups of patients with schizophrenia.

Groups of patients	Concentration of anti-DNA Abs U/mL (M ± SD)		Relative hydrolysis of DNA(%)
	Anti-ssDNA	Anti-dsDNA	
Healthy donors (n = 24)	7.4 ± 2.7	6.9 ± 0.9	9,1 ± 6,5
Total group of patients with schizophrenia (n = 51)	6.9 ± 3.7	7.4 ± 3.7	55.4 ± 32.6*
Positive symptoms (n = 25)	7.2 ± 4.1	5.3 ± 3.05	43.3 ± 33.1
Negative symptoms (n = 26)	5.4 ± 2.4*	7.9 ± 4.5	73.3 ± 23.8**