S56. Perspectives of psychiatry in Central and South-Eastern Europe

Chair: N. Sartorius (CH)

S56.1

Psychiatric education, scientific and research activities in Yugoslavia

D. Duišin*. *Institute for Psychiatry, University Clinical Center of Serbia, Belgrade, Yugoslavia*

Psychiatric education in Yugoslavia is organized through pre-graduate and post-graduate studies. Pre-graduate studies include two semester lectures and practice, colloquies and final exam. Post-graduate education includes theory and practice on all psychiatric departments and psychiatry related medicine branches for four years period.

Throughout the specialization of psychiatry senior psychiatrists supervise residents. Different therapeutical approaches are included in the post-graduate psychiatric programme in Yugoslavia. Final exam consists of comprehensive clinical and theoretical part in front of University commission. In addition post-graduate studies are organized for several sub specializations.

Masters and PhD studies are also a part of post-graduate studies in psychiatry. Scientific research has not been properly and systematically organized in Yugoslavia, during the past period. Access to scientific literature through journals and Internet service significantly increased lately. Professional collaboration became stronger by participation at international psychiatric meetings, research networks and different professional associations. Clinical research has been developed mainly in cooperation with few pharmaceutical companies. Other part of scientific research is outreached through supervised Master and PhD studies, which are deprived for modern basic investigations.

S56.2

Organization, ethical and legal aspects of mental health service in **Yugoslavia**

T. Čavić*. *Institute for Neuropsychiatry "Dr Laza Lazarević", Belgrade, Yugoslavia*

Mental health service in Yugoslavia passes through transition phase and still relies on huge psychiatric hospitals and small University departments. Participations of the primary care in mental health service are insufficient.

There is a serious problem with prolonged hospitalizations and comprehensive outpatient follow-up regarding non-existence of database and statistical evaluation.

During the past period Yugoslavia has been faced with extreme obstacles and difficulties in provision of sufficient amounts of medicines for the patients. Fortunately, there had been substantial help from different kind of medical donations.

Recently, many NGO's has been mostly involved in the problems of traumatic stress, frequent in the past years in Yugoslavia. Ethical Committees established in educational and research psychiatric institutions consists from professionals of different profiles and laypersons from the community. However, it cannot be said that they are functioning properly, partly due to contradictions between old legislations and actual requests.

Mental health legislation in Yugoslavia is rather old-fashioned comparing to modern trends in the mental health service. The main problem is involuntary hospitalization of psychiatric patients, which should be resolved through new mental health legislation.

S56.3

Past, present and future in education in psychiatry in Romania

A. Mihai*, A. Nirestean. *University of Medicine & Pharmacy, Targu Mures, Romania*

Post-graduated education in Psychiatry is organized in five national university centers: Bucharest, Cluj, Iasi, Targu Mures and Timisioara. The duration of this period is five years and during it the young psychiatrist may be involved different kind of trainings in psychotherapies and therapeutically approach.

In the same context we had access in psychiatric summer schools and four seminars organized with help of Lundbeck Institutes.

The participation in National and Regional Psychiatric Meetings offers credits for Romanian Psychiatrists in agreement with European Concept of Continual Medical Education.(CME)

S56.4

Organisation of psychiatric service in Romania

M. Pop*, A. Nirestean, A. Mihai. *Romania*

Old system of Institutionally Psychiatry has developed to an ambulatory system that include Centers of Mental Health, Centers of Ergotherapy and Centers for Intervention in Crisis, majority organized in university cities. In last year emerge the component of the system for comunitary psychiatry who include: Day Centers and Hostels. We underline the existence of sixteen groups of Anonyms Alcoholics (AA) who activate in Romania and organize every year meetings and experience exchanges. Also are important the recent organization of specialized centers for drug dependence uniformly distributed in all regions of the country.

S57. Brain morphology in schizophrenia

Chairs: N.C. Andreasen (USA), A. Vita (I)

S57.1

Novel methods to study brain morphology in schizophrenia

N.C. Andreasen*, T. White, P. Nopoulos. *The University of Iowa Hospitals & Clinics, Mental Health Clinical Research Center, Iowa City, USA*

A high degree of gyrification characterizes the mature human brain. The study of gyrification–the shape and pattern of sulcal and gyral curvature–is a useful tool for examining mechanisms that shape brain development. We have developed a novel method to measure sulcal and gyral curvature and cortical depth based on *in vivo* MR imaging, in order to use gyrification measures as a probe for understanding the neurodevelopmental abnormalities in schizophrenia. We have studied two groups of subjects suffering from schizophrenia, who were compared to heathy volunteer control subjects. The first group consisted of 42 patients who had their onset of illness during childhood and adolescence and ranged in age from 12 to 19. The second group consisted of a separate group of 47 adult first episode patients. We found that both groups had very similar patterns of abnormality. Both groups of patients had prominent abnormalities in sulcal and gyral curvature and cortical depth affecting the whole brain, but which were more prominent in

https://doi.org/10.1016/S0924-9338(02)80396-0 Published online by Cambridge University Press

sulci than gyri. They had slightly different patterns of abnormality in lobar subregions, but both groups had significant abnormalities in the frontal lobes. These results suggest that the neurodevelopmental processes that affect gyrification begin relatively early. Longitudinal studies are needed in order to refine our knowledge concerning the time of onset of gyrification abnormalities and the underlying developmental mechanisms.

S57.2

The brain morphology of schizophrenia

P. Falkai*. *Department of Psychiatry, University of Bonn, Germany*

Meanwhile it is clear that schizophrenia is a brain disorder. Based on several metaanalysis it is clear that structurally the following changes are present: reduced whole brain volume, increased ventricular volume and decreased hippocampal volumes bilaterally. Due to a lack of signs for a typical neurodegenerative disorder these changes are supposed to be a consequence of disturbed brain development. Recently many researchers have tried to link such changes with the molecular basis os schizophrenia. Data are presented using the gyrification index (GI) in schizophrenia fullfilling this premise as an endophenotypic marker. Such markers should help to disantangle which morphological markers are relevant for schizophrenia.

S57.3

Are brain changes in schizophrenia focal and are they progressive?

R.S. Kahn*. *University Medical Center, Department of Psychiatry, Utrecht, The Netherlands*

Numerous neuroimaging studies have shown structural and functional brain abnormalities in schizophrenia. One of the open questions is whether the structural abnormalities in the brains of schizophrenia patients are confined to specific areas and whether these changes are progressive over time. In several studies our group has examined these issues. We found that gray matter changes are progressive over time in first episode and in chronic patients with the schizophrenia and that some of these changes are related to outcome of the illness. Moreover, certain areas are affected more than others, such as the amygdala, the medial temporal and frontal areas. Also changes in the thalamus are pronounced and may be related to the risk of schizophrenia since these changes have also been found in first relatives of patients with schizophrenia. In contrast decreases in frontal gray matter may be related to the illness itself and to its outcome. Data from structural imaging studies of our group will be presented.

S57.4

Heteromodal association cortex involvement in schizophrenia

T.E. Schlaepfer[1]*, G. Pearlson[2]. [1]*Psychiatric Neuroimaging Group, University Hospital Bern, Switzerland*
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The heteromodal association neocortex (HASC) is believed to be a major site of involvement in schizophrenia. The HASC areas comprise a highly integrated, reciprocally interconnected system which coordinates higher order cortical functions. It includes the prefrontal cortex and portions of the superior temporal and inferior parietal cortices, which are linked in cognitive networks observing complex executive functions. The HASC is highly elaborated in humans and is believed to continue to develop long past birth. The neuropathology of schizophrenia is most certainly heterogeneous and appears to involve developmental abnormalities, but there is mounting and converging evidence of HASC involvement in schizophrenia.

S57.5

Time course of structural brain changes in schizophrenia: an update

A. Vita*, L. De Peri, M. Dieci. *Department of Mental Health, Azienda Ospedaliera di Melegnano Milano, Italy*

The neurodevelopmental vs neurodegenerative nature of brain pathology in schizophrenia has long been debated in the last decades.

Longitudinal studies of structural brain changes have the highest potential for clarifying this issue.

Unfortunately, the relative literature is largely discordant and shifted in the last fifteen years from a nearly general agreement on substantial stability of brain morphological features to a nearly general agreement on the occurrence of a certain progression of some brain structural abnormalities over the course of schizophrenic illness.

Different factors (e.g. methodological, clinical, treatment issues) may play a role in determining such discrepancies as well as structure-specific time course of changes may be hypothesized.

The issue is quantitatively and critically reviewed in the lihgt of the competing pathophysiological hypothesesnof brain pathology of schizophrenia.

S57.6

Brain morphometry and auditory hallucinations in schizophrenia

P.W.R. Woodruff*. *Sheffield Cognition and Neuroimaging Laboratory (SCAN Lab), University of Sheffield, UK*

The aim of the presentation will be to explore the different ways of examining links between brain structure and the development of auditory hallucinations in schizophrenia through a critical evaluation of a series of published studies and new approaches.

A number of studies have used magnetic resonance imaging techniques to examine brain morphology in patients with schizophrenia who experience auditory hallucinations, or those predisposed to develop these symptoms, in an attempt to identify specific associations between brain structure and auditory hallucinations. Studies, using a region of interest method, have, for instance, shown an inverse correlation between volumes of temporal lobe regions (superior temporal gyrus, planum temporale) and auditory hallucinations in patients with schizophrenia. There is a suggestion, not universally observed, that these findings are lateralised to the left. Voxel-based morphometry studies have revealed additional brain regions that may be involved in those patients with schizophrenia who experience particularly severe auditory hallucinations. Using these techniques together with functional techniques opens up the possibility to examine in detail structure/function relationships in the pathogenesis of auditory hallucinations in schizophrenia.

https://doi.org/10.1016/S0924-9338(02)80396-0 Published online by Cambridge University Press