

efforts to measure quality of life in psychiatric patients and present reasons why quality of life should nevertheless be measured in psychiatric patients — reasons perhaps even more compelling in psychiatry than in other field of medicine.

S73. Psychiatric genetics and studies of relatives of psychotic patients

Chairmen: T Sharma, A Vita

NEURODEVELOPMENTAL MODEL(S) OF SCHIZOPHRENIA AND APPROACHES TO THEIR VALIDATION

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Several neurodevelopmental models have been proposed for schizophrenia: the early model which posits a fixed lesion during intra or perinatal life which interacts with normative postnatal maturation, a late model which implicates a primary derailment in postnatal peri-adolescent brain maturational processes, and a risk-diatheisis model in which psychosocial risk factors interact with genetic vulnerability to cause the disorder.

In this paper, we critically evaluate each of these models; we propose that the facts best fit a continuous transaction model in which the schizophrenic syndrome results from a cascade effect of derailment in early and late maturational processes of brain development interacting with adverse humoral and psychosocial factors as well as protective factors continually during childhood and adolescence.

Finally, we will review the testable predictions generated by these models, and critically evaluate the various research strategies (i.e., the generic and biobehavioural high-risk strategies, follow back strategies, birth cohort studies, etc.) that will potentially further our understanding of the neurodevelopmental pathogenesis of schizophrenia. We suggest that an “enriched” high-risk paradigm (in which subjects at high genetic risk are further selected on the basis of neurobehavioural vulnerability markers) is likely to be a cost-efficient strategy for future high risk studies investigating the neurodevelopmental pathogenesis of schizophrenia.

LOSS OF DEVELOPMENTAL TORQUE IN FAMILIAL SCHIZOPHRENIA — A VOLUMETRIC MAGNETIC RESONANCE IMAGING STUDY USING UNBIASED STEREOLOGY

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The goal of the study was to determine whether familial schizophrenic patients and their unaffected first degree relatives differed from healthy subjects in regional cerebral asymmetries. Regional volumes corresponding to prefrontal, premotor, sensorimotor, occipitoparietal, and temporal lobes in each hemisphere were measured on contiguous 1.5 mm 3D MRI images in 28 patients, 55 relatives and 39 controls using a new software based on stereological principles and capable of unbiased volume estimation.

This study revealed a significant abnormality of cerebral hemispheric volume asymmetries in patients with schizophrenia. The healthy comparison subjects showed a systematic pattern of asymmetries, with prefrontal, premotor and temporal regions larger on the right and sensory motor and occipito parietal regions larger on the left. In contrast, the patients did not show this pattern; they had low absolute asymmetry of all regions and reversed asymmetry of the occipito-parietal and prefrontal regions. The loss of asymmetry was present in both dextral and non-dextral schizophrenic subjects. In addition, transmitting parents (presumed obligate carriers), who are themselves unaffected, showed the same reversal as the schizophrenic family members. The absence of normal cortical asymmetry in familial schizophrenia and the unaffected parents lends support to an early neurodevelopmental abnormality that is likely to be genetic in origin.

A PET STUDY OF WORD GENERATION IN OBLIGATE CARRIERS OF THE PREDISPOSITION TO SCHIZOPHRENIA

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Building on previously reported findings of a qualitatively different functional anatomy underlying word generation in chronic and acute [drug naive] schizophrenics and normal individuals we have studied presumed obligate carriers of the predisposition to schizophrenia. These individuals are drawn from multiply affected kindreds but are themselves clinically unaffected. We have used PET to measure regional cerebral blood flow (rCBF) in 11 obligates and 9 normal controls. Subjects were scanned while articulating words provided by the experimenter at a rate of 1 every 5 s, and also while articulating self-generated words at the same rate. The difference in rCBF between the two conditions indicates the pattern of cerebral activity associated with word generation. Obligates demonstrate a widespread pattern of aberrant activity within frontal systems associated with the execution of internally generated acts. These findings are consistent with theories implicating a heritable component to the brain dysfunction seen in schizophrenia.

SCHIZOPHRENICS AND THEIR ADOPTED-AWAY OFFSPRING. THE FINNISH ADOPTIVE FAMILY STUDY OF SCHIZOPHRENIA

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The National sample of the Finnish Adoptive Family Study of Schizophrenia consists of all adopted-away offspring (N = 183) of schizophrenic women hospitalized in Finland (N = 19447). The index offspring have been blindly compared with adopted-away offspring of nonpsychotic biological mothers. At initial assessment 345 (92%) out of total 376 adoptees (Index/controls) and their biological and adoptive parents and rearing families were interviewed and tested individually and jointly. At follow-up interviews (on average 15 years later) most of the adoptees available have been personally interviewed with PSE, SCID-2 and SIS schedules. DSM-III-R diagnoses have been given to the biological mothers and their adopted-away offspring.

There is more schizophrenia and “schizophrenia spectrum disorders” in adopted-away offspring of biological mothers with schizophrenia or with “schizophrenia spectrum disorders” as compared with control offspring. Schizophrenia Spectrum here is defined as

schizo-affective disorder, schizophreniform disorder, delusional disorder, psychosis NOS or schizotypal personality disorder. These preliminary results lend support to the hypothesis of the genetic vulnerability which is broader than for narrowly defined schizophrenia but for a broader spectrum including nonschizophrenic psychotic illnesses and schizotypal personality disorder. The hypothesis of Gene-Environment-interaction will be explored in future papers.

BRAIN MORPHOLOGY IN FAMILIAL AND SPORADIC SCHIZOPHRENIA

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The existence of different characteristics in sporadic and familial forms of schizophrenia represents a controversial issue in psychiatric research. The achievement of positive data in this direction would support the hypothesis of an even partial heterogeneity of the disease.

As for the cerebral neuromorphology in "sporadic" and "familial" forms of schizophrenia, we recently performed three different studies:

(1) A meta-analysis conducted on published data about cerebral ventricular dimensions in 325 schizophrenic patients without family history for schizophrenia (FH-) and 122 schizophrenic patients with family history for the disease (FH+), showed that the VBR for FH- patients was 21% higher than that for FH+ cases; this result just failed to reach the level of statistical significance ($p = 0.1$).

(2) In a sample of 229 patients we could demonstrate that in males, but not in females, VBR was significantly higher in FH- patients than in FH+ patients ($p = 0.024$) [1].

(3) In a sample of 56 patients we found a significantly increased prevalence of Epithalamus calcifications in FH- as compared to FH+ patients ($p = 0.018$).

These results are discussed relative to the clinical differential features of familial and sporadic schizophrenia.

[1] Vita A, Dieci M, Giobbio GM, Garbarini M, Morganti C, Braga M, Invernizzi G: A reconsideration of the relationship between cerebral structural abnormalities and family history of schizophrenia. *Psychiatry Res.*, 53: 41-55; 1994.

S74. The best and worst of academic psychiatry — Part II

Chairmen: D Goldberg, A Hamid Ghodse

Abstracts not received.

S75. Violence in children and adolescents

Chairmen: JD Cordeiro, JA Costa e Silva

MEDIA VIOLENCE AND ADOLESCENT DEVELOPMENTAL ISSUES

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Violence is around us, at home or in the street. Daily news about terrorism, war, murder, rape, torture invade us. We are confronted with neo-nazism, racism, nationalism and all the violence these beliefs bring. Our present cultural references are multiple and characterised by constant visual impact. They are imposed by media and we cannot integrate them harmoniously in our developing personality. Literature attests the power of the media in influencing childrens' and adolescents' beliefs and potentially their behaviour. Media influence adolescents in many ways that are analysed according to multiple perspectives and conceptual views (social learning, cognitive necessitation, cognitive scripting, arousal and catharsis theories). Some of these theories will be analysed in order to detect interrelated and compatible features regarding the short and long-term effects of violence. A critical review of methodologies of studying the effects of media violence is undertaken, mainly regarding attitudinal surveys, content analysis, naturalistic laboratory and field experiments and correlational studies. We detailed some clinical observations in which we show how television scripts teach adolescents about gender roles, conflict resolution, sexual gratification, methods of coping with stress and violence. We concluded that the cultural internationalisation and the information massification model the way we perceive and give meaning to individual and collective violent behaviours. Old identification models based on real object relationships developed in a specific space and time are now substituted by imaginary identification models referred to the idealized, omnipotent, magic and transgressive qualities. These models promote an intense stimulation (extreme violence, self-aggression, dissociated erotization) that (by their visual penetration and mitification) cannot always be contained and mentalized and so harmoniously integrated. These new references promote mainly imitation and fusional identifications through shared phantoms and do not allow the development of individual original diversifying and enriching personal phantoms. Some preventive cues are proposed based on the need to stimulate the quality of media programmes for children and adolescents, increasing media literacy and promoting a vigorous engagement of health professionals and parents in media advocacy.

BULLYING: THE VIOLENCE IN PEER GROUPS

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The paper attempts to describe the most worrying violent social phenomenon in peer groups called bullying.

What is bullying? How much bullying takes place? Who might be at risk? What are the causes of bullying? And finally — what can be done? are the most important issues considered in the paper.

The term refers either to individual or to group violent actions against lonely victim. The definition is worth of interest for it has led to different ways of interventions. Common patterns describe bullying as pupil-to-pupil activity but there are teachers founded as bullies and controverely, some of them felt bullied by children. The bullying involves intimidations, extortions and physical threats,