

acteristics of the conventional neuroleptics, in particular, at doses considerably lower than previously examined.

It has been proposed that the "atypical" properties of clozapine is explained by its simultaneous interaction with 5-HT₂ and D₂ receptors. We have demonstrated very high (85–90%) 5-HT₂ receptor occupancy and low (20–67%) D₂ receptor occupancy in patients treated with low to moderate doses of clozapine. This finding supports the position of the 5-HT₂ receptor as potential mediator of atypical effects. The putative atypical antipsychotics risperidone and olanzapine induced high occupancy of both D₂- and 5-HT₂ receptors at clinically relevant doses. Further clinical characterization of such new compounds will thus provide valuable leads to the clarification of atypical antipsychotic action.

IN VIVO RECEPTOR SPET STUDIES OF ANTIPSYCHOTIC DRUG ACTION

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Nuclear medicine techniques (positron emission (PET)- and single photon emission tomography (SPET)) now permit examination of brain receptors in living subjects. As these receptors are targeted by antipsychotic drugs, hypotheses concerning drug action may now be tested in vivo. In particular, schizophrenic nonresponders and responders to classic antipsychotic drugs show similar levels of D₂ blockade by the drugs. The atypical antipsychotic drug clozapine has beneficial effects without high striatal D₂ receptor blockade. We will report data showing the novel atypical drug, olanzapine occupies striatal D₂ receptors to the same low extent as clozapine. However, another new atypical antipsychotic drug, sertindole, like risperidone, shows high levels of striatal D₂ blockade but few extrapyramidal side effects. These data will be discussed in the light of recent theories as to the neuropharmacology of schizophrenia.

S78. New perspectives in psychiatric epidemiology

Chairmen: H Hafner, J Angst

EPIDEMIOLOGY OF SEXUAL PROBLEMS AND DYSFUNCTIONS IN THE COMMUNITY

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Representative community studies of sexual dysfunctions are almost non-existent. Two studies have been conducted on middle aged women [1,2], but no studies of males have been launched as yet.

In the Zurich cohort study 591 males and females were interviewed five times during a 15 year period, from ages 20–35. At age 35, 69% of the subjects were still in the study. Sexual dysfunctions were assessed in one section of a broad semi-structured interview carried out by clinical psychologists. The prevalence rates obtained were cumulatively gathered over the five interviews and weighted back to the normal population.

Emotional sexual problems were found in 21% (males 12.6, females 29.2), low sexual desire in 29% (males 23%, females 35.1%) and functional problems in 17% of cases (males 10.5%, females

23.3%). Sexual dysfunctions were found to be associated with depression, anxiety disorders and insomnia, but no association with other functional somatic syndromes was recorded. Females differed from controls in their elevated scores of neuroticism and autonomous lability as found by Osborne et al. [2]. Moreover, females were characterised by low self-esteem and mastery and by increased avoidance coping strategies. Subjects with children developed sexual problems more frequently and these were usually caused by difficulties in partnerships and core family.

- [1] Garde K, Lunde I: (1980) Social background and social status: influence on female sexual behaviour. A random sample of 40 year old Danish women. *Maturitas* 2: 241–246.
- [2] Osborn M, Hawton K, Gath D: (1988) Sexual dysfunction among middle aged women in the community. *BMJ* 296: 959–962.

CEREBRAL VENTRICLE DIMENSIONS AS RISK FACTORS FOR SCHIZOPHRENIA AND AFFECTIVE PSYCHOSIS: AN EPIDEMIOLOGICAL APPROACH TO ANALYSIS

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The literature on neuroimaging in psychosis contains many references to, so called, "enlargement" of some structures, the dimensions of which vary continuously throughout the population with considerable overlap between affected and unaffected groups. Is this concept of enlargement valid?

A case-control study was undertaken of volumetric computerized tomographic scan measures in 216 consecutive admissions for functional psychosis and 67 healthy community controls. Odds ratio analysis demonstrated significant linear trends in the association between increasing lateral and third ventricle volumes, and both RDC schizophrenia ($N = 121$) and schizo-affective disorder ($N = 41$); cases were consistently associated with larger volumes than controls. There was an association between larger third, but not lateral, ventricle size in affective psychoses ($N = 54$). These associations were statistically independent of intracranial volume, sex, social class and ethnicity, factors which were significantly associated with ventricular measures in the controls and presumably, in the general population. There was no evidence of a threshold corresponding to the notion of normal *versus* enlarged ventricles.

GENETIC EPIDEMIOLOGY OF FUNCTIONAL PSYCHOSES

W. Maier.

The presentation will focus on schizophrenia and bipolar affective disorder.

During the last decades a broad variety of studies explored the patterns and the determinants of the familial aggregation of the major psychiatric disorders. As most other common diseases all functional psychoses are aggregating in families.

The diagnostic specificity of the familial patterns of aggregation is low. Particularly with affective disorders occurring more frequently than expected by chance in families of probands with schizophrenia. The various subtypes of both disorders are not breeding true in families with the single exception of bipolar affective/schizo-affective disorders.

Family, twin and adoption studies clearly demonstrated that both disorders are of multifactorial origin. Although the specific nature of causes is widely unknown it is evident that genetic as well as environmental factors (familial as well as individual) are contributing as it has also been shown for other common diseases.