

equalling 5,600 patient years that the mortality during lithium long-term treatment is no more different from the normal population, and that it rises again when lithium is discontinued. Additional recent data from Italy, Switzerland and Sweden fully support these findings. Such an effect has not been demonstrated so far for any other alternative prophylactic treatment in affective disorders. It is estimated that in Germany, where only 0.06% of the population are receiving lithium, ca. 200 suicides/year are prevented equalling 3060 working years before the age of 65.

### S39.03

#### CLOZAPINE AND SUICIDE PREVENTION IN SCHIZOPHRENIA

M. Jakovljević. *University Department for Psychiatry, Clinical Hospital Centre Zagreb, Kispaticeva 12, 10000 Zagreb, Croatia*

Suicide is one of the most common cause of premature death among patients with schizophrenia and schizoaffective disorder. The suicide rate among schizophrenic patients is reported to vary between 8 and 15 percent what is more than 20 times higher than in general population. About 40 percent of all schizophrenic patients will attempt suicide sometime in their lives. That is why the suicidal behaviour is one of the most serious issue in the long-term treatment of schizophrenia.

To investigate suicide risk reduction as a possible specific benefit of clozapine treatment, the International Clozaril/Leponex Suicide Prevention Trial (InterSept) is currently being conducted. This large, prospective naturalistic study will compare the rate of suicide attempts and deaths in schizophrenic patients at high risk of suicide randomly assigned to receive clozapine or olanzapine. As results should be available in 2001, in the lecture will be presented some Croatian observations and experiences with clozapine in suicide prevention in schizophrenic patients. The author has had almost twenty years clinical experience with clozapine in the schizophrenia treatment. It appears that risk factors which appear to be significant for suicidal behaviour in schizophrenia are very different: presence of specific schizophrenic productive symptoms (imperative hallucinations and suicidal delusions), traits like increased impulsivity, aggressiveness and low frustration tolerance, experiencing chronic disabling disease and multiple relapses, awareness of mental deterioration, hopelessness and loss of faith in the treatment, akathisia and tardive dyskinesia, premature antipsychotic drug discontinuation and noncompliance, presence of different types of depression (a part of schizoaffective disorder, a post-psychotic depression, a consequence of neuroleptic treatment etc.), destructive family relationships, etc. On the other hand suicidal behavior may be related to dysfunction of various neurotransmitter systems (e.g. postsynaptic 5-HT<sub>2</sub> and 5-HT<sub>1A</sub> as well as alpha 1 and alpha 2 noradrenergic receptors are increased). Clozapine multiple neurotransmitter modulation of serotonergic, noradrenergic, cholinergic and dopaminergic functions may be the biological basis of its significant antisuicide potential as well as of its beneficial therapeutic effects on majority of risk factors previously mentioned. In conclusion one can say that a significant progress was made by clozapine in improving efficacy of antipsychotic drug treatment of schizophrenia in general as well as in reducing suicidality of schizophrenic patients.

### S39.04

#### PREVENTION OF SUICIDES BY LONG-TERM TREATMENT WITH ANTI-DEPRESSANTS?

J. Angst\*, F. Angst, H.H. Stassen, P.J. Clayton. *Zurich University Psychiatric Hospital, Zurich, Switzerland*  
*Santa Fé, New Mexico, USA*

**Methodological Considerations:** Suicides are rare; study of the effects of treatment on suicide rates therefore requires either very large samples or observation over decades.

**Study:** In a follow-up study carried out on consecutive hospital admissions (1959–1963) comprising 220 bipolar and 186 depressive patients, mortality data were collected in 1991 and 1997. The long-term medication (more than six months) administered in the intervals between episodes was roughly classified as antidepressants, neuroleptics and lithium. Patients receiving such treatments were more seriously ill and suffered more residual interepisodic symptoms and impairment according to the Global Assessment Schedule. Nevertheless, the suicide rate among patients receiving long-term interval medication was significantly lower than that of the non-treated patients. Their SMR was about one-third that of the untreated sub-sample. A marked reduction in suicides was found among patients receiving antidepressants alone; the reduction was even greater when patients received antidepressants in combination with neuroleptics (mainly clozapine and thioridazine) or lithium. The assumed treatment effect was found in bipolar and unipolar depressed patients. Cardio-vascular deaths were fewer in the treated group than in the untreated one.

**Conclusion:** Low dose long-term medication with antidepressants and atypical neuroleptics seems to be highly prophylactic against suicidality.

## S40. Consequences of extreme situations and disasters

*Chair: V. Krasnov (RUS)*

### S40.01

#### PSYCHIATRY OF EXTREMAL SITUATION

V.N. Krasnov

No abstract was available at the time of printing.

### S40.02

#### MENTAL DISORDERS IN REFUGEES

Z.I. Kekelidze\*, D.P. Demonova. *Serbsky National Research Centre for Social and Forensic Psychiatry, Moscow, Russia*

After the USSR collapse about 9 millions of citizens were forced to change their place of residence due to ethnic conflicts. The study have shown that the refugees, who find themselves at the epicenter of ethnic conflicts, have gotten a short-term "pre-emigratory period" of time due to the urgent necessity to flight from the direct threat. After the departure from a conflict zone people manifested different behavioral deviations reflecting different depths of a mental disorder that could be from the psychological level to the psychopathological one, such as psychological shock, grief reactions; paranoid reactions; generalized anxiety disorders; anxiety-depressive disorders; anxiety-phobic disorders. Later on hypodynamic depression developed in some of the emigrants, and hysteria-depressive reactions prevailed in others. The largest group were