

FC04-03

## SEROTONIN, TRAUMA AND VIOLENCE IN ATTEMPTED SUICIDE

T. Moberg, P. Nordström, M. Kristiansson, J. Jokinen

Department of Clinical Neuroscience/Psychiatry, Karolinska Institutet, Stockholm, Sweden

**Introduction:** Serotonin is implicated in impaired impulse control, aggression and suicidal behaviour. Low cerebrospinal fluid (CSF) concentrations of the serotonin metabolite 5-hydroxyindoleacetic acid (5-HIAA) have been found in violent suicide attempters, suicide victims and in violent offenders. CSF 5-HIAA concentrations have both genetic and environmental determinants. Childhood trauma may have an effect on central monoamine function as an adult.

**Aims:** The aim of this study was to assess the relationship of CSF 5-HIAA and the exposure to and the expression of violence in childhood and during adult life measured with the Karolinska Interpersonal Violence Scale (KIVS).

**Methods:** 42 medication free suicide attempters underwent lumbar puncture and were assessed with the Karolinska Interpersonal Violence Scale (KIVS) to assess history of childhood exposure to violence and lifetime expressed violent behaviour.

**Results:** In women CSF 5-HIAA showed a significant negative correlation to exposure to violence during childhood. Furthermore, suicide attempters with low CSF 5-HIAA were more prone to commit violent acts as an adult if exposed to violence as a child compared to suicide attempters with high CSF 5-HIAA. In the non-traumatized group, CSF 5-HIAA showed a significant negative correlation to expressed violent behaviour in childhood.

**Conclusions:** Although central serotonergic function has important genetic determinants, exposure to childhood trauma may also affect serotonergic function. Low serotonergic function may facilitate aggression dyscontrol in traumatized suicide attempters.