

## P02-14

### GENDER DIFFERENCES IN [123I]-ADAM BINDING TO SEROTONIN TRANSPORTERS IN PATIENTS WITH MAJOR DEPRESSION BEFORE AND AFTER TREATMENT WITH CITALOPRAM

K. Uebelhack<sup>1</sup>, L. Franke<sup>1</sup>, N. Herold<sup>2</sup>, M. Plotkin<sup>2</sup>, H. Amthauer<sup>2</sup>, R. Uebelhack<sup>1</sup>

<sup>1</sup>Department of Psychiatry and Psychotherapy, Charité - Universitätsmedizin Berlin, <sup>2</sup>Departments of Radiology, Nuclear Medicine and Radiooncology, Charité - Universitätsmedizin Berlin, Campus Virchow Klinikum, Berlin, Germany

**Aims:** The aim was to determine the relation between characteristics of [123I]-ADAM binding to serotonin transporters (SERT) in several brain regions to different symptoms in patients diagnosed with major depressive disorder (MDD) and to analyze data for males and females separately. Differences of [123I]-ADAM binding in patients before and after treatment with Selective Serotonin Reuptake Inhibitor (SSRI) antidepressant Citalopram were assessed.

**Method:** 12 non medicated patients (5 females and 7 males) diagnosed with MDD were examined by SPECT with specific Serotonin transporter radioligand [<sup>123</sup>I]-ADAM before and after treatment with SSRI Citalopram. We administered the dose of 10 mg Citalopram per day intravenously at first day, followed by a 6 days period of oral application. After 7 days of treatment patients were examined for second time with SPECT. The relationships between [<sup>123</sup>I]-ADAM binding and different aspects of major depression represented by HAMD items, assessed twice by Hamilton Depression-Scale (HAMD) once at baseline and second after treatment period, were evaluated.

**Results:** We found significant correlations with significant gender differences between singular sub items of HAMD and indices of [123I]-ADAM binding in midbrain before and after treatment. These findings points to the need of data analysis separately in males and females. No correlations between HAMD total scores at baseline and indices were found.

**Conclusion:** SERT availability for 123-ADAM binding in the midbrain in drug naives as well as in treated patients with major depression disorder seems to be related to intensity of sub items in the HAMD and the outcome of treatment.

: