

**Conclusion:** the menstrual, pregnancy, post partum may be a periods of risk for development or onset of obsessive compulsive disorder. Midwife clinicians caring for women need to be aware of the impact of these symptoms and attention for mental health in women.

### P0177

Anankastic traits in the Gospels – Martha, sister of Mary and Lazarus  
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In the gospels of Luke and John are mentioned the siblings Martha, Mary and Lazarus. Martha's character is complex. She is portrayed as a good hostess and a faithful believer. In the scenes of Jesus reception in Martha's house in Bethany, and Lazarus death and resurrection, she shows a pattern of rigidity and inflexibility which constrains her social attitude. As Jesus said to her, "Martha, thou art careful and troubled about many things" (Luke 10:41 KJV). Martha seeks orderliness and perfectionism giving anxious responses in the interpersonal situations described. The author makes some theoretical considerations about the theme and presents the trait obsessionalism in this verisimilar character portrayal.

### P0178

White matter abnormalities in obsessive-compulsive disorder: A diffusion tensor imaging study

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**Background and Aims:** The corpus callosum (CC) is the largest interhemispheric white matter commissure connecting the cerebral hemispheres and plays a crucial role in interhemispheric communication and cognitive processes. The subdivisions of the CC were attempted to define corresponding areas of the cortex from which the fibers originate. Previous neuroanatomic studies of the CC provide impetus for investigating its role in obsessive-compulsive disorder (OCD).

**Methods:** In this study diffusion tensor imaging (DTI) was employed to microstructural abnormalities of white matter of the CC in OCD patients. Nine patients with OCD and matched control subjects underwent DTI. Fractional anisotropy (FA), an index of the integrity of white matter tracts, was determined in the seven subdivisions of the CC.

**Results:** Significant reduction in FA was found in the rostrum of the CC of patients with OCD compared with one of controls. FA of the other subdivisions except the rostrum in OCD patients did not differ compared with control subjects. Higher FA in the rostrum correlated with lower Y-BOCS scores ( $r = -0.852$ ,  $p = 0.004$ ).

**Conclusions:** The rostrum contains fibers from inferior premotor as well as medial and caudate/orbital prefrontal regions. These results supported the theory of dysfunction of prefrontal cortex and striatal circuits in OCD and suggested the implication of the orbitofrontal circuit for symptom severity in the OCD patients.

### P0179

Neural correlates of obsessive-compulsive disorder with the compulsion to wash

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Patients with obsessive-compulsive disorder (OCD) with the compulsion to wash have fear of contamination or feel contaminated. The compulsion to wash often lasts for hours, so that massive difficulties to cope with everyday life follow. There exist only few data on the aetiology of specific OCD-subgroups as the compulsive disorder to wash. Specific neural correlates of OCD with compulsion to wash have never been analyzed before. Existing neuroimaging data on OCD generally show changes of neural activity in the striatum, orbitofrontal cortex and anterior cingulate gyrus. A dysfunction of frontostriatal loops is supposed as one cause of OCD. From a psychoanalytic point of view OCD with the specific compulsion to wash is related to a suppression of autosexual and aggressive drives.

In our neuroimaging study (fMRI) we compared the neural networks of OCD-patients with the compulsion to wash and healthy controls. We used a picture-paradigm consisting of autosexual, aggressive, disgusting, neutral and water pictures. We were interested in the neural correlates of OCD-patients with compulsion to wash regarding the different affective pictures categories and expected neural differences between patients and controls. Stimuli were taken partly from the IAPS, partly also self-constructed and validated by a control group. First results point at significant differences in neural activity between patients and healthy controls, especially in disease-related components as autosexual, aggressive and water pictures. OCD-patients used a more extended and more emotional related network of brain structures.

Our study provides new insights into neural correlates of OCD-patients with the compulsion to wash.

### P0180

Obsessive compulsive disorder – Precursor in the psychotic disorder

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The obsessive compulsive disorder (OCD) has as a neuro-biochemical under-layer an imbalance on multiple neuro-transmitter lines: serotonin, noradrenaline and Gama Amino Butiric Acid. In time, an imbalance appears in the balances serotonin/dopamine and noradrenaline/dopamine (noradrenaline modulates the activity of the dopaminergic system), generating dysfunctionality in the dopaminergic line. It creates thus the neurobiochemical support for the development of a psychotic board.

The specialized studies reveal the implication of 5 and 11 chromosomes both in schizophrenia and in OCD (genetic determinism). In this way the vulnerability through genetic support of the passage to psychotic pathology from OCD can be explained.

The imagistic modifications emphasized by PET and SPECT, at the level of the frontal lobe, of basal ganglia and cingulate gyrus, in the two disorders as well as electroencephalographic modifications sometimes similar, emphasize the idea that OCD can at time be a step towards the first psychotic episode in schizophrenia.

The anxiety within the OCD symptomatology can produce an aggression on the hippocampus, a mechanism present also in schizophrenia.