Pathophysiology of OCD

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During the past decade, tremendous progress has been made in our understanding of the neurobiology of Obsessive Compulsive Disorder (OCD). This presentation will review the most widely accepted models of pathogenesis and their implications for treatment and prevention strategies. In addition, directions future research might take will be discussed.

Comorbidity and Treatment Aspects of Somatoform Disorders in Different Cultures

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Somatoform disorders are a group of widely prevalent disorders situated in the borderland between primary care, medicine and psychiatry. It is often believed that they are found more frequently in developing countries, whereas patients in the Western world would be more prone to "psychologise" their emotional distress, whether it be depression or anxiety. It is also often believed that somatic symptoms are frequently seen during the course of these two same disorders.

This paper discusses findings resulting from an ongoing WHO International Study performed in five different centres in five different continents: patients received an accurate assessment of somatic symptoms by means of a new diagnostic instrument specifically designed for trans-cultural diagnosis of somatoform disorders; patients also received a thorough diagnostic evaluation by an experienced psychiatrist to assess coexisting psychiatric disorders.

The results from this study are analysed in terms of comorbidity rates for various conditions across the five centres. A characterization will also be produced of the type of settings in which these disorders are seen and of the treatment these disorders commonly receive in the different cultures.

The 5-HT1a Receptor in Development in Adult Brain: Modulation of Brain Function

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Serotonin, like many neurotransmitters, plays a role in modulating the development of the mammalian brain largely through interactions with the 5-HT_{1a} receptor. We have studied the effects of treating developing rat pups during critical periods of postnatal development (PD 3–10 or PD 10–17) with the 5-HT_{1a} agonist, 8-OH-DPAT (1 mg/kg). Interestingly, the results on behavioral, anatomical and neurochemical development of these groups appears to be, in many cases, completely opposite.

Treatment with the agonist at the earlier timepoint accelerates development – the animals opened their eyes sooner, had earlier incisor eruption and gained weight more rapidly than their saline littermates. As adults, the animals showed significant anxiety and decreased serotonin innervation of the caudate and hippocampus. Animals treated at the later time (PD 10–17) gained weight normally and performed better on learning models as adults and showed loss of serotonin terminals in the cortex.

Our work has also shown that many of the effects of serotonin in development are still operative in the adult brain and play a role in synaptic stabilization. Changes in the 5-HT_{1a} receptor in adults or the immature brain, such as through the influence of glucocorticoids on this receptor, could thus have profound effects on brain function.