This presentation discusses the advantages of integration of pharmacological, psychological and other treatment modalities in the management of impaired sexual arousal and proposes a stepwise integrated approach to this disorder in both males and females.

CS01.03

Integrated treatment of female and male orgasmic disorders

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For about a century male ejaculatory disorders were considered to be caused mainly by psychological disturbances. However, since the 1990s, daily SSRI treatment has become very popular to delay ejaculation in men with lifelong PE. In addition, research has shown that it is likely that the persistent occurring very short ejaculation times of less than 1 minute in lifelong PE are related to neurobiological dysfunction in the central nervous system. On the other hand, epidemiological studies have shown that ''complaints'' of PE may not only occur in men with very short intravaginal ejaculation latency times (IELTs) but also in men with normal and even long ejaculation latency durations of, for example, 20 minutes. As their complaints are probably highly psychologically determined, treatment by counseling, psychotherapy of other non-medical interventions have been suggested. Integration of drug treatment, psycho-education, counseling and psychotherapy increases the chances for better coping mechanism in men affected by ejaculatory and orgasm problems. For female orgasmic disorders, particularly anorgasmia, medication is not yet available. Primary female anorgasmia is difficult to treat as multiple factors are involved in its pathophysiology. Neurobiological and pharmacological research is needed to develop drug treatment for those women who would like to alter this state. But with or without drug treatment, counseling may be of great value and contribute to better coping styles.

Symposium: Animal models of CNS disorders. Effects of drug treatments

S06.01

Gene-environment interaction in an animal model of depression

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Background: Both genes and environment play a role in depression. Data indicate that in addition to monoamines, other endogenous compounds, such as neuropeptides, as well as hippocampal cell loss/neurogenesis may be important in pathophysiology and treatment of depression. Finally, it is not clear whether early intervention could alleviate or prevent the disorder. Consequently, we studied neuropeptides in animal models: (i) a genetic model, the Flinders Sensitive Line (FSL) rat and their controls, FRL line, (ii) an environmental model, early maternal separation that mimics early life trauma in humans - experiences that predict adult life psychopathology, and (iii) maternal separation superimposed on the genetic FSL model

Methods: Behavior was studied when the animals reached adulthood, and brain neurochemistry and cell proliferation postmortem. On postnatal days (PND) 2–14, FSL and FRL pups were maternally separated for 180. Escitalopram or vehicle were started on PND 44. Porsolt swim test was done on PND 64-65.

Results: baseline FSL-FRL differences were found in the Porsolt swim test and in brain neuropeptides, in particular NPY and CGRP in selected brain regions. Cell proliferation was also affected. Moreover, maternal separation and escitalopram also differentiated between the strains.

Conclusions: Both genes and environment play a role in ''depression'' but the consequences of early life events are more deleterious in genetically vulnerable individuals. Neurochemical, in particular NPY and CRH, and cell proliferation changes indicate that we may have identified some biological correlates of depression. potential strategy to alleviate adult life psychopathology.

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S06.02

High and low anxiety rat model: Emotionality, neuropeptides and aggression☆

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The selective breeding of Wistar rats for high (HAB) versus low (LAB) anxiety-related behaviour resulted in two rat strains which have been validated as a suitable animal model for studying neurochemical and genetic mechanisms underlying anxiety- and depression-related disorders. The robust differences in the anxiety phenotype are accompanied by alterations in neuroendocrine and neuronal stress-responsiveness to various stimuli, and in relevant brain neurotransmitter systems including arginine vasopressin (AVP), CRF and serotonin, and by impaired hippocampal neurogenesis. Manipulation of the endogenous vasopressin or oxytocin systems reveals their significant involvement as neuromodulators of anxiety behaviour in HAB rats.

HAB and LAB rats also provide an excellent model for studying interactions between early environmental factors (i.e. early life stress: prenatal stress, maternal separation) and the genetic predisposition for either high or low stress susceptibility. Thus, differential, partly opposite effects of prenatal or postnatal stress on adult emotionality, stress coping, neuropeptide expression patterns within the hypothalamus or hippocampal cell survival have been found in adult HAB and LAB rats.

Finally, selection for low trait anxiety in LAB rats goes along with the development of high intermale aggression during the resident-intruder test, and with a generally high neuroendocrine and neuronal response to social stimuli. Therefore, LAB males may develop as a promising animal model for studying neurobiological mechanisms of pathological aggression and its link to the genetically determined level of anxiety.

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S06.03

The nitric oxide pathway in anxiety and stress-related disorders

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Affective disorders are widely distributed disorders with severe social and economic effects. Strong evidence underlines that effective treatment helps to restore function and quality of life. Unfortunately,

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