S08. Treatment of sexual dysfunction across the sexual cycle

Chairs: R. Balon (CH), Z. Zemishlany (IL)

S08.1

Pharmacotherapy of female hypoactive sexual desire disorder

R.T. Segraves*. *Department of Psychiatry, Case Western Reserve University Cleveland, Ohio, USA*

Epidemiological studies in the United States have found that approximately 30% of the female population aged 18 to 59 complain of problems with low sexual desire. Scandinavian studies using different methodology find a lower incidence of female low sexual desire. There are no generally accepted treatments for female low sexual desire. Attempts to treat low sexual desire with peripheral vasodilators such as phophodiesterase inhibitors have been unsuccessful. A number of studies have suggested the presence of an androgen deficiency syndrome in women with low sexual desire. Exogenous testosterone at supraphysiological levels have been shown to increase reports of both subjective sexual desire and sexual activity. The health consequences of long term therapy with supraphysiological doses, of testosterone are unclear. Lower doses of exogenous testosterone have not been found to be effective. Studies of the efficacy of dehydroepiandrosterone have been inconsistent. Pilot data suggests that bupropion, a drug with both norephinephrine and dopamine reuptake inhibition, may have efficacy in the treatment of low sexual desire.

S08.2

Pharmacotherapy of sexual arousal disorders

R. Balon*. *Wayne State University, Detroit, Michigan, USA*

The essential feature of sexual arousal disorders is a persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate a) lubrication-swelling response of sexual excitement in case of female sexual arousal disorder (FSAD), b) erection in case of male erectile disorder (ED). Since the introductions of sildenafil, the treatment of ED has received much attention. Besides various mechanical and surgical treatments, pharmacotherapy has become a mainstay in the treatment of ED. Topical vasodilatators (nitroglycerin, glyceryl trinitrate, minoxidil), intraurethral suppositories (alprostadil) intracavernous penile injections (e.g., alprostadil, papa- verine, phentolamine, vasoactive intestinal polypeptide) have all been used. However, oral preparations, such as yohimbine, trazodone and especially sildenafil are the most frequently used pharmacotherapies for ED. There are limited data available regarding treatment of FSAD. Various lubricants, ointments (glyceryl trinitrate) and creams (with estrogen) and hormones (e.g. transdermal testosterone estrogen replacement in postmenopausal women) have been found useful. Several reports also suggest possible usefulness of sildenafil in FSAD. Combination of various treatment modalities, including psychotherapy, should be used in the treatment of these disorders.

S08.3

Pharmacotherapy – orgasm disorders

M. Waldinger. *Leydenburg Hospital, Department of Psychiatry, The Hague, The Netherlands*

The most mysterious part of orgasm is the well-known intense feeling. Neuroscientists have had much trouble in the investigation of orgasm. An animal model of orgasm is lacking, since it is unknown whether animals experience orgasm in a similar way as humans. But male orgasm is usually associated with ejaculation that can be investigated in animals. Both orgasm and ejaculation have probably overlapping neuronal circuitries in the brain. In recent years, much of the ejaculatory circuitry has been unravelled.

Animal studies in male rats have clearly shown that activation of 5-HT2c receptors delay ejaculation, whereas activation of 5-HT1a receptors shortens ejaculation. The role of 5-HT2a and 5-HT3 receptors in the ejaculation process has been postulated but has never been demonstrated in animals or humans.

The medial preoptic are (MPOA) in the rostral hypothalamus and the nucleus paragigantocellularis (nPGi) in the ventral medulla are suggested important players in the ejaculation process. Electrical stimulation of the MPOA promotes ejaculation. In the nPGi serotonergic receptors have been demonstrated. It has been postulated that ejaculation-delay induced by SSRIs is related to an action of serotonergic drugs on the nPGi.

S08.4

Female hypoactive sexual desire disorder psychological treatment

K.B. Segraves*. *Department of Psychiatry, Case Western Reserve University, Cleveland, Ohio, USA*

Effective diagnosis and treatment of sexual disorders is often a challenging albeit a rewarding aspect of one's clinical practice. Sexual concerns are intrinsically related to quality of life issues. For many individuals, sexual functioning has major influence on how a person experiences their sense of self and personal adequacy. Within a relationship, sexual behavior may be a major vehicle for expressions of intimacy and contribute significantly to the stability of the relationship. Thus, the identification of contributing & maintaining factors of sexual problems as well as designing effective interventions is a primary concern of clinical psychiatry.

Lack or loss of sexual desire is one the most frequent sexual concerns among female patients. There is little consensus concerning the psychological etiology of this disorder. Sometimes there are factors that may explain the loss of desire; however, many times no identifiable factors can be found. Given the possibility of multiple etiological factors, formulating treatment interventions is often a challenge. There is a paucity of evidence-based psychological interventions in the literature.

I will limit my presentation to addressing psychological treatments. Drawing from my clinical experience I will attempt to demonstrate the importance of the sexual interview. I will attempt to show how a therapist might use etiological factors identified in the diagnostic interview to help to design individual treatment strategies.

S08.5

Pharmacotherapy of sexual dysfunction in special populations

Z. Zemishlany*. *Geha Psychiatric Center, Petah-Tikva, Israel*

Sexual dysfunction is associated with many psychiatric disorders including schizophrenia, depression and anxiety disorders, as well

https://doi.org/10.1016/S0924-9338(02)80077-3 Published online by Cambridge University Press

as in the normal elderly population. Antipsychiotics and most antidepressant medications impair sexual function even further, leading to non-compliance and relapse. The prevalence of sexual dysfunction in schizophrenics treated with typical and atypical antipsychotics is 30–60%. Attempts to treat sexual dysfunction using dopaminergic drugs such as L-dopa, apomorphine, amantadine and L-deprenyl were disappointing. Sildenafil citrate (Viagra) seems to be an effective treatment in less deteriorated male patients who are capable of maintaining a reasonable relationship with their partners. A variety of strategies have been used in the management of SSRI-induced sexual dysfunction: waiting for spontaneous resolution, dosage reduction, drug holidays, adjunctive pharmacotherapy or switching antidepressants. Adjunctive agents are SHT_2 antagonists (cyproheptadine, mianserin, mirtazapine), dopamine receptor agonists (psychostimulants, bupropion) and Viagra. Substitute antidepressants are bupropion, nefazodone, mirtazapine and reboxetine. In an open-label study with 10 male SSRI-treated PTSD patients who complained of sexual dysfunction, the use of sildenafil (50 mg) significantly improved their erectile function and intercourse satisfaction. Sildenafil (25–50 mg) was efficacious also for antidepressant-induced erectile dysfunction in elderly male depressed patients (n=11, age 70–81, mean age 73 yrs). In 8 out of 11 patients, erectile function returned to a normal level. Side effects were noted in two patients (headache). It appears that sildenafil co-administration is efficacious, safe, and well-tolerated in special populations.

S09. Is schizophrenia really just a neurodevelopmental disorder?

Chairs: E. Johnstone (GB), S.M. Lawrie (GB)

S09.1

Recent evidence on the neurodevelopmental model of schizophrenia

J. Parnas. *Denmark*

No abstract was available at the time of printing.

S09.2

Clinical and cognitive markers of the development of schizophrenia

M. Byrne[1]*, B. Clafferty[2], R. Cosway[3], E. Grant[4], A. Hodges[5], H. Whalley[3], S. Lawrie[3], D.G. Cunningham-Owens[3], E.C. Johnstone[3].
[1]*University of Aarhus, Denmark*
[2]*Forth Valley Primary Care NHS Trust, Falkirk West Community Health Team;* [3]*Department of Psychiatry, University of Edinburgh, Scotland, UK*
[4]*PCEA, Chogoria Hospital, Kenya*
[5]*Dr. Gray's Hospital, Elgin, Scotland, UK*

Neuropsychological impairments have been reported in patients with schizophrenia, in the adult relatives of such patients, and in children at high genetic risk for the disorder. In the Edinburgh High Risk for Schizophrenia Study we examined the relationship between neuro-psychological impairments and risk for schizophrenia, and the development of psychotic symptoms in subjects at enhanced genetic risk for schizophrenia. The results from a battery of neuro-psychological assessments were compared among 157 high-risk subjects, and 34 normal controls. Findings were related to a quantitative measure of genetic risk, calculated for the high-risk group according to the number of ill and well relatives in the family and their relationship to the subject, and to development of psychotic symptoms. Neuropsychological differences were identified in many areas of function and were not accounted for by the presence of psychotic symptoms in some subjects. The quantitative measure of genetic liability was not associated with either neuropsychological function or with the development of psychotic symptoms. These results suggest that what is inherited is not the disorder itself, but a state of vulnerability manifested by neuropsychological impairment occurring in many more individuals than are predicted to develop the disorder.

S09.3

Structural and functional MRI in the Edinburgh High Risk Study

S.M. Lawrie*, H. Whalley, D. Job, K.P. Ebmeier, D.G.C. Owens, E.C. Johnstone. *Edinburgh University Department of Psychiatry, Royal Edinburgh Hospital, Edinburgh*

MRI studies of the brain in schizophrenia have demonstrated structural abnormalities, particularly of the temporal lobes, and disruptions of fronto-temporal functional connectivity. We conducted sMRI scans in 150 high risk subjects aged 16–25 at baseline and 66 of them after approximately 2 years, and have now conducted sMRI and fMRI scans in almost 100 after a further 2–3 years. Healthy age-matched controls have also been scanned.

We have found associations between pre-frontal and basal ganglia volumes with genetic liability, and reductions in medial temporal lobe and thalamus volumes in the high risk group compared to controls, at baseline. Those with psychotic symptoms had relatively large brains at baseline as well as reductions in temporal lobe volumes over two years. More detailed analyses of temporal lobe abnormalities and fronto-temporal dysconnectivity are in progress.

Overall, the results suggest that some abnormalities of the brain in high risk subjects are genetically mediated and developmental, that others may only become apparent in late adolescence for unclear reasons, and that psychotic symptoms are associated with further structural changes.

S09.4

An MRI study of subjects in the prodromal phase of psychosis

P. McGuire*, D. Velakoulis, P.D. McGorry, S.J. Wood, J. Suckling, L.J. Phillips, A.R. Yung, E.T. Bullmore, W. Brewer, B. Soulsby, P. Desmond, C. Pantelis. *Section of Neuroimaging, Institute of Psychiatry, London; Cognitive Neuropsychiatry Research & Academic Unit, University of Melbourne & Sunshine Hospital; Department of Psychiatry, University of Cambridge; Early Psychosis Prevention and Intervention Centre (EPPIC) and Personal Assessment and Crisis Evaluation (PACE) Clinic, Melbourne, Australia*

Introduction: Recent prospective neuroimaging studies have suggested that there are progressive volumetric changes in grey matter over the course of psychotic disorders. We sought to investigate this issue using magnetic resonance imaging (MRI) to examine brain structure in subjects before and after the first episode of psychosis.

Methods: a) *Cross-sectional comparison*: Subjects identified as being at ultra high-risk (UHR) of developing psychosis were scanned using MRI; at 12 month follow-up 31% had developed a psychosis and 69% had not. The MRI data from these 2 subgroups at baseline were compared by ANCOVA, controlling for age. b) *Longitudinal comparison*: Subjects were scanned at baseline and again, either after the onset of psychosis, or at least 12 months

https://doi.org/10.1016/S0924-9338(02)80077-3 Published online by Cambridge University Press