Hypersexuality has been defined as the subjective experience of loss of control over sexuality (Catalan and Singh, 1995). It is known to be associated with mood, impulse and compulsive disorder (Coleman and Kafka, 1991) and with biological factors such as brain injury involving septal nuclei (Gorman and Cummins, 1992) and dementia (Potocnik, 1992). Sexual addiction is synonymous with hypersexuality, which is defined as a condition in which some form of sexual behaviour is employed in a pattern that is characterized by two key factors: (1) recurrent failure to control the sexual behaviour and (2) continuation of the sexual behaviour despite significant harmful consequences (Goodman, 1998). Kafka (1991) defined non-paraphilic sexual addictions as culturally acceptable sexual interests and behaviours that increase in frequency or intensity so as to significantly interfere with the desired capacity for a sustained intimate sexual relationship. These behaviours may include compulsive masturbation, dependence on anonymous sexual outlets like pornography, or telephone sex, and repetitive promiscuity involving using people as sexual objects.

Over recent times a lot of interest has been generated in understanding the physiological aspects and pharmacological management of hypersexuality/sexual addiction/compulsive sexual behaviour. Selective serotonin reuptake inhibitors (SSRIs) have been proposed as a treatment option following studies demonstrating their inhibitory effect on 5-HT\textsubscript{2} receptors (Kafka, 1995). Here we report a case believed to be the first of its kind of a patient with hypothalamic hamartoma and hypersexuality who responded to citalopram.

Case report

A 34-year-old caucasian single man was assessed with the complaints of excessive sexual desire and paraphilic fantasies. He was born with pubic hair and attained erection at a very early age. He started to masturbate at a very early age of 7 yr and to ejaculate at 9 yr of age. At the age of 7 yr he was diagnosed as having precocious puberty, with plasma testosterone levels of 11.6 nmol/l (adult range 6–30 nmol/l). He was also found to have a hypothalamic hamartoma diagnosed through MRI brain scan. A surgical intervention was not thought to be necessary. At this stage he was started on cyproterone acetate at the age of 7.2 yr, with the bone age of 12.6 yr. He was masturbating at least twice a day every day since the age of 7 yr, and was always preoccupied with sexual thoughts and fantasies. At the age of 31 yr he also developed a seminoma, which needed left orchidectomy with insertion of testicular prosthesis.

The patient was seen in psychiatric outpatient clinic when hypersexuality was identified with no associated mental illness. The sexual fantasies involved sex with pre-pubescent girls, although there were no incidents of legal or forensic concern. He was screened with the ‘Preoccupation with sex’ questionnaire (J. Catalan and A. N. Singh, unpublished questionnaire). Citalopram 20 mg was commenced and the questionnaire was repeated at regular intervals to assess the outcome. A course of cognitive–behavioural therapy (CBT) was commenced at the same time to enhance his self-esteem. On review at 3 wk he reported that he had masturbated only twice and that his sexual urges were markedly reduced. Three months later he stopped masturbating completely and the sexual fantasies were also less frequent. He remained on citalopram for 10 months and then reduced to alternate days and stopped. He was reviewed for further 6 months without medications and no increase was reported in his symptoms. His confidence improved and he was able to concentrate much better on his college courses. He was discharged from the clinic and subsequent follow up at 2 yr showed no signs of relapse. The serum testosterone level was 20.3 nmol/l a year after discontinuation of citalopram, which is within the normal adult range. However, testosterone levels are not available during the course of treatment.
Discussion

Hypersexuality (compulsive sexual behaviour/sexual addiction) is an extremely distressing problem for the patients. There are several biological and psychological factors that can contribute towards this problem (Coleman and Kafka, 1991). However, evidence is virtually non-existent for a direct association between hypothalamic hamartoma and hypersexuality although precocious puberty is a well known complication of hypothalamic hamartoma (Judge et al., 1977).

It has been postulated that sexual paraphilias (Greenburg and Bradford, 1997) and sexual addictions (Kafka, 1994) are a manifestation of serotonergic dysfunction, possibly at a hypothalamic level. There is an observation that serotonin depletion in the presence of testosterone results in hypersexuality (Gessa et al., 1970), as the serotonergic system possibly regulates hypothalamic control of testosterone levels (Greenburg and Bradford, 1997).

In this patient, the most likely mechanism by which citalopram may have worked is by impairing sexual performance by acting via serotonergic receptors. However, an alternative mechanism of action can be proposed. Studies suggest that hypothalamic hamartomas may cause precocious puberty by autonomous production and release of luteinizing-hormone-releasing factor into blood vessels that communicate with the pituitary portal blood system (Judge et al., 1977). It is possible that the above mechanism has resulted in the abnormal production of testosterone in our patient who had adult levels of testosterone at age 7 yr. Serotonin has previously been shown to inhibit the secretagogue action of luteinizing hormone releasing factor (LHRH) on gonadotrophs (Payette et al., 1985). This raises the interesting possibility in this patient of SSRIs reducing the sex drive through the negative feedback effect on hypothalamic–pituitary–gonadal axis. This hypothesis however needs to be explored further before any conclusions can be reached. The clinical improvement in this patient remained even after discontinuation of citalopram. This can be attributed to the potential synergistic effect of citalopram and CBT as has been observed where psychological therapies were unlikely to be successful on their own (Grubin, 2004).

With several case reports suggesting the benefits of SSRIs in hypersexuality a double-blind study is needed to demonstrate clinical efficacy of SSRIs in these patients.

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Statement of Interest

None.

References


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