UBM Medica Psychiatric Times

Psychiatric Times. Vol. 13 No. 6

Therapy for Sexual Impulsivity: The Paraphilias and Paraphilia-Related Disorders

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- Paraphilia-related disorders have been diagnosed in male paraphiliacs (Longo and Groth; Langevin and others), and men selected for studies of paraphilia-related disorders are reported to have paraphilias as well (Carnes).
- Paraphilia-related disorders can produce a pattern of sexual frequency and intensity with concomitant psychosocial impairment that does not readily distinguish them from nonviolent paraphilic disorders (Carnes, Kafka and Prentky 1992a).
- Analogous with paraphilias, the presence of a single paraphilia-related disorder increases the likelihood of occurrence of a multiplicity of these behaviors in an affected person.
- Paraphilias and paraphilia-related disorders can both be ameliorated by antiandrogens and serotonergic antidepressants, especially serotonin reuptake inhibitors. Disorders of sexual impulsivity can be pleomorphic and may include sexual arousal to behaviors that are socially "deviant" as well as "normal." In fact, inasmuch as paraphilia-related disorders may be common in paraphiliacs and also occur without the companion of the latter, paraphilia-related disorders may be the more prevalent form of sexual impulsivity. In addition, although the estimated sex difference ratio for paraphilia-related disorders is unknown, protracted promiscuity (e.g., "nymphomania") and compulsive masturbation are not uncommon behaviors described by women.

Although this article is written to highlight pharmacotherapy, most males with sexual impulsivity disorders treated with pharmacotherapy should have a concurrent psychological treatment including such modalities as a specialized sex offender program, group therapy, a 12-step "sexual addiction/compulsion" recovery program or a therapist familiar with this complex's disorders.

Pharmacotherapy

While there is no single unifying theory to adequately explain the pathogenesis of sexual impulse disorders, there are currently two distinct classes of psychopharmacological agents, antiandrogens and serotonergic antidepressants, that are prescribed during the treatment of paraphilias and paraphilia-related disorders.

Antiandrogens

The antiandrogens cyproterone(Drug information on cyproterone) acetate (CPA) and medroxyprogesterone(Drug information on medroxyprogesterone) acetate (MPA [Amen, Depo-Provera) are the most commonly prescribed agents for the control of repetitive deviant sexual behaviors and have been prescribed for paraphilia-related disorders as well. Although neither drug has been specifically approved by the Food and Drug Administration for the treatment of paraphilic disorders, both agents are used in Canada and Europe and medroxyprogesterone is available in the United States. Both agents, available as oral or parenteral preparations, have been shown in multiple studies to reduce recidivism rates in male sexual aggressors (for review, Bradford 1995a), the group most commonly prescribed these drugs.

Common side effects of antiandrogens include weight gain, fatigue, hypertension, headaches, hyperglycemia, leg cramps and diminished spermatogenesis. In addition, there may be an increased risk of thromboembolism in men (and women) with risk factors associated with clotting disorders and rare feminization effects such as breast swelling and changes in hair distribution during prolonged treatment.

Medroxyprogesterone acetate, an analog of progesterone(Drug information on progesterone), lowers serum testosterone by reducing the production of testosterone from its precursors, and by significantly increasing its metabolic clearance rate from serum by interfering with the binding of testosterone to a serum sex-hormone binding globulin. It is most commonly prescribed in the parenteral depot form and

injected weekly or biweekly in doses ranging from 100 to 800 mg (usually 200 to 500 mg). Although less clinical data exist on oral medroxyprogest-erone, encouraging results have been reported (Gottesman and Schubert) using doses from 20 to 100 mg per day.

Cyproterone acetate inhibits testosterone directly at androgen receptor sites and also exhibits antigonadotrophic effects. In its oral form, the usual prescribed dosage range is 50 to 200 mg per day. Parenterally, it is usually administered every one to two weeks at dosages of 300 to 600 mg per injection.

Testosterone, the principal androgen (sex hormone) produced by the testes, is considered the most important androgen affecting male sexual behavior. The role of testosterone as a primary etiological factor in physical and sexual aggression in men, however, remains ambiguous. The majority of studies of testosterone in male sex offenders reveal that serum total testosterone (i.e., protein bound and unbound) is within normal limits in all but a subgroup of the most violent paraphiliacs (Hucker and Bain). In fact, there are reports of male paraphilias with low baseline serum testosterone (Seim and Dwyer). Despite these data, most men prescribed antiandrogens report a calming effect in both sexual aggression and general irritability, and these agents have become the standard biological intervention for sexually aggressive paraphiliacs. Since the prescription of antiandrogens for paraphilias is still considered an off-label use (i.e., not FDA-approved for that specific use), it is prudent to document informed consent in a patient's record before antiandrogen administration, and to obtain baseline fasting glucose, liver functions, vital signs, serum FSH and total testosterone.

The effect of antiandrogens on sexual desire and associated fantasies, erections, urges and other sexual behaviors is usually evident by two to four weeks after the initiation of pharmacotherapy. Pharmacological tolerance to their effects has not been described, and either agent can be tapered without a rebound increase in sexual or aggressive behaviors. After a period of symptom stabilization, a lower maintenance dose can sometimes be titrated to minimize side effects, and in some cases, to permit a more selective mitigation of deviant sexuality in comparison with conventional sexual desire.

Sexual fantasies and erections usually return approximately two to four weeks after an antiandrogen is gradually tapered, although in some men it may take longer for the effects to be fully reversed.

Although there may not be a linear relationship between lowered serum testosterone and diminished deviant sexual behavior, some investigators seek to lower serum testosterone to prepubertal levels (<100 ng per dL) and others target a 50-percent reduction of circulating testosterone as adequate for a therapeutic effect with less side effects. This clinical feature of monitoring circulating testosterone as well as the parenteral administration of these agents provides a means to assure compliance in men who are court-mandated, are sexual predators or are incapable of taking oral medications reliably to assure that compliance with treatment had been maintained should an offense reoccur. On the other hand, oral MPA or CPA can be utilized with highly motivated males with paraphilias and paraphilia-related disorders (Gottesman and Schubert).

In oral preparation, the daily dose of antiandrogens can be more readily titrated to perhaps preserve "conventional"sexual arousal. Compliance is enhanced because the patient is afforded improved self-efficacy, and the dose can be more easily adjusted during a slow taper phase.

It is common practice that antiandrogen pharmacotherapy is utilized as a therapeutic modality early (e.g., three to 12 months) during cognitive, behavioral and group therapies in the treatment of sex offender paraphiliac patients. In some circumstances, however, antiandrogens have been prescribed for more than a decade with no significant untoward effects and with continued beneficial mitigation of deviant sexual arousal.

Serotonergics

Anxious and depressive symptoms and disorders have been identified in paraphilic sex offenders (Kavoussi and others; Grossman and Cavanaugh), nonoffender paraphiliacs (Wise and others) and men with paraphilia-related disorders (Kafka and Prentky 1994). *DSM-IV* notes that "symptoms of depression may develop in individuals with paraphilias and may be accompanied by an increase in the frequency and intensity of the paraphiliac behavior."

Before 1988, only a handful of case reports suggested that mood disorders and paraphilias might be comorbid and that thymoleptic treatment could ameliorate both depressive and anxious symptoms as well as deviant fantasies, urges and sexual behaviors. Since 1989, there have been increased reports suggesting that serotonergic antidepressants, in particular serotonin reuptake inhibitors (SRIs), can ameliorate both paraphilias and paraphilia-related disorders even in the absence of a concurrent mood disorder diagnosis (Fedoroff 1993; Kafka and Prentky 1992b; Kafka 1994b).

Research data regarding mammalian sexual behavior and monoamine neurotransmitters suggest that decreased central (i.e., brain) serotonin (5-hydroxytryptamine [5-HT]) and increased dopamine(Drug information on dopamine) neurotransmission may disinhibit or promote sexual behavior and, conversely, enhancing central serotonin activity or inhibiting dopamine receptors in the brain may inhibit sexual behavior in some mammalian species (Mas). These data, in addition to the burgeoning research and clinical literature on the role of serotonin in the regulation of mood, anxiety, impulsive and obsessive-compulsive disorders, provide a reasoned etiological framework to approach sexual impulsivity as a group of diverse sexual impulsivity disorders that might share a common pathophysiology, diminished central serotonin neurotransmission and be ameliorated by serotonergic antidepressants.

Of the serotonergic agents reported, fluoxetine(Drug information on fluoxetine) (Prozac) has received the most attention (e.g., Fedoroff 1993; Kafka and Prentky 1992b), although lithium (Cesnik and Coleman), clomipramine(Drug information on clomipramine) (Anafranil) (Kruesi and others; Rubey and others) buspirone (BuSpar) (Fedoroff 1988; Pearson and others), fluvoxamine(Drug information on fluvoxamine) (Luvox) (Zohar and others) and sertraline(Drug information on sertraline) (Zoloft) (Bradford 1995b; Kafka 1994b) are reported as effective as well in case reports and open clinical trials with outpatients. One report, although limited by a small sample size, suggests that both clomipramine and desipramine (Norpramin) are equally effective in reducing paraphilic behaviors (Kruesi and others).

SRIs can be prescribed in the usual "antidepressant" doses for sexual impulse disorders even in the absence of significant affective symptomatology. When effective, SRIs can selectively mitigate sexual impulsivity and preserve "normative" sexual desire and behaviors associated with reciprocal affectionate activity. A distinct effect on sexual as well as depressive symptoms is commonly apparent by week 4 after initiating pharmacotherapy (Bradford 1995b; Kafka and Prentky 1992b). In addition, antidepressant pharmacotherapy may diminish the vulnerability to "negative affective states" (e.g., irritability, depressed mood) commonly reported to precede sexual offending behaviors. Because of these effects on nonsexual target symptoms and syndromes, serotonergic drugs may offer additional therapeutic benefits in comparison with antiandrogens.

Currently, in this writer's practice as well as in some sex offender treatment programs, SRIs are the primary biological treatments for sex offenders and men and women with paraphilia-related disorders. It is important to emphasize that any single subject may fail to respond to one drug but have a beneficial response to a second or third drug of the same class. It is well-known that pharmacological tolerance may develop to the beneficial effects of serotonin reuptake inhibitors as well as other antidepressants during the treatment of depressive conditions. This same problem has been noted during the treatment of

sexual impulsivity disorders as well (Kafka 1994b). In that context, antidepressant augmentation with either lithium(Drug information on lithium) carbonate (300 to 900 mg per day) or psychostimulants (e.g., methylphenidate(Drug information on methylphenidate) [Ritalin], pemoline(Drug information on pemoline) [Cyclert], dextroamphetamine [Dexedrine]) while maintaining the same dose of the primary serotonergic antidepressant is usually effective in helping to recapture the therapeutic response and diminish the risk of subsequent relapse.

Other alternative augmentation strategies that may be effective include adding low dose of a secondary amine tricyclic (e.g., desipramine 10 to 75 mg per day, buspirone(Drug information on buspirone) 10 to 30 mg per day, or pindolol(Drug information on pindolol) [Visken] 5 to 10 mg per day) to the primary SRI.

With one exception (Kruesi and others), there are virtually no systematic data regarding the efficacy of tricyclic antidepressants, MAO inhibitors, buproprion (Wellbutrin), nefazodone(Drug information on nefazodone) (Serzone) or venlafaxine (Effexor) prescribed for sexual impulsivity disorders. Although serotonin reuptake inhibitors have the clinical advantage of being more readily prescribed and accepted by both the medical and patient community, there have been no published double-blind or placebo-controlled studies of their use in either incarcerated or outpatient sex offenders and there are no published reports describing recidivism rates of sex offenders treated with SSRIs.

Given these clinical caveats, antiandrogens should still remain as the treatment of choice for sexually dangerous paraphiliacs. Pharmacotherapy with serotonergic antidepressants requires a highly motivated patient inasmuch as no antidepressant is currently available as a parenteral preparation. In that regard, fluoxetine in comparison to the other SSRIs has the advantage of a long metabolic half-life, so that an occasional missed dose should not affect clinical status.

Last, from this clinician's experience, the antiandrogen medroxyprogesterone acetate (and likely cyproterone acetate), either as an oral or parenteral preparation, can be combined safely and administered concomitantly with an SRI. In these circumstances, this combination has several potential advantages, including the use of a relatively lower dose of antiandrogen to have a beneficial clinical effect, a potential additive effect to rapidly control socially deviant sexual arousal and the ability to maintain control over sexual impulsivity symptoms when switching from one SRI to another agent.

Paraphilias and paraphilia-related disorders are more clinically prevalent than most clinicians suspect. Since these disorders are cloaked in shame and guilt, it is common that the diagnosis of these conditions may not be adequately revealed until a therapeutic alliance is firmly established. Even then, it is more helpful to inquire directly about sexual impulsivity disorders than to hope or expect that a patient will be spontaneously forthcoming. Once a diagnosis is established, appropriate psychoeducation regarding sexual diagnoses, associated Axis I comorbidity and appropriate use of psychopharmacological agents can greatly improve the prognosis for these conditions.

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