Use of Depo-Provera in the Treatment of Aggressive Sexual Offenders: Preliminary Report of Three Cases

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In 1970 Money reported on the use of medroxyprogesterone acetate in depot injectable form (Depo-Provera) in a group of eight male sex offenders.[1] One case, that of a bisexual transvestite who engaged in pedophilic homosexual incest, is described in detail. The patient enjoyed a five-year remission after two years of injections and required only one brief return to the injections during a period of crisis nine months after they were first discontinued. Others have since contributed to the still sparse literature on the usefulness of the drug in relieving certain males of the uncontrollable impulse to commit sexually deviant, antisocial acts. Of particular interest has been the suggestion that some patients have been able to withdraw from the drug and resume normal sexual functioning without return of the deviant urges. Money refers to this as "psychic realignment." Blumer, on the other hand, notes that a group of four sex deviates "initially report [ed] relief, but later tended to drop out of treatment."[2] However, some of the patients thus treated have welcomed the respite provided by the medication and have been able to make gains in psychotherapy and social rehabilitative efforts during this time. This further reduces the likelihood of their return to deviant behavior, whether or not they have been deconditioned as Money implies.

Medroxyprogesterone acetate, a synthetic progestin, was reported by Kupperman *et al.*[3] in 1962 as useful in the treatment of precocious puberty. The drug has also gained a place in the treatment of various gynecological disorders such as functional uterine bleeding and secondary amenorrhea. Also, because of its clear-cut effect in reducing circulating testosterone,[4,5] it has been used in otherwise intractable cases to contain the impulse to act in a sexually deviant way. There seems to be no disagreement that high doses (in the neighborhood of 300 mg. every ten days) effectively control unwanted sexual behavior when that behavior is associated with frequent sexual arousal. A question yet to be resolved, however, is the length of time over which the medication can be administered before irreversible damage is done to the testicles, adrenals and thyroid. Complicating this question is the uncertainty surrounding the basic mechanism of action of the drug. It most likely exerts its effect by interfering with the effect of pituitary gonadotropins on testosterone production by the testicles. However, animal experiments show a direct effect of adrenal hypotrophy.[6] Furthermore, there is evidence that progesterone itself administered intravenously in large doses has an anesthetic effect, presumably by direct action on the cerebral cortex.[7] Thus, at this time, it would seem reasonable to administer the drug only under carefully supervised conditions with periodic physical and laboratory endocrinological examinations. Barring any evidence of endocrine dysfunction, the decision to withdraw the medication must be made on the basis of other clinical considerations. These include the strength of the patient's positive relationship to the therapist, the degree to which he has resolved the conflicts underlying the aberrant behavior, the degree to which he has been able to embark on

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a constructive program for reshaping his life following the crisis of arrest, etc. The importance of the patient's ability to discuss openly with his therapist any resurgence of the long-suppressed impulse to deviant behavior cannot be overstressed. As Money has noted, such a return of the forbidden impulse can be met successfully with smaller and less frequent doses administered during periods of crisis.

Aggressive sexual offenders have traditionally received no more than diagnostic services from mental health professionals. While certain authors have noted reasonable success with group therapy as well as other forms of psychotherapeutic intervention with non-aggressive offenders, the plight of the aggressive offender has been shrouded in therapeutic nihilism. Since this patient rarely appears for treatment before he becomes known as an aggressive offender by virtue of his arrest, and since he is likely to commit similar offenses in the future now that the taboo against such activity is broken, all concerned with such people have been reluctant to employ any of the standard forms of therapy on an outpatient basis. Thus, the aggressive offender is generally sentenced to prison in the vain hope that he will receive effective therapy and be released only when he is no longer a danger to others. The development of a potentially effective form of treatment on an outpatient basis which allows for uninterrupted engagement with family, work, and other social relationships with the potential for promoting growth, is therefore of considerable importance.

Three cases will be described in which the offenders were indicted for class B felonies and volunteered for treatment with Depo-Provera initially as a condition of their release on bail. It should be noted that others were evaluated for this treatment but were considered unsuitable because of their previous history of unstable personal relationships, their inability to form a positive working alliance with a therapist, or their expressed intention to participate in treatment only as a way of satisfyng the authorities rather than from a sense of involvement with and responsibility for their behavior.

CASE HISTORIES

D.C. is a 20-year-old, married white male who was indicted for first degree sodomy and first degree reckless endangerment. This was his fourth arrest for impulsive, assaultive sexual conduct; he had been sentenced only to probation for these offenses previously. At the time of his last arrest, which had occurred only six months before, a course of exploratory psychotherapy was begun, obviously to no avail.

D.C. is the fifth of six children born to hardworking, strict, religious, middle class parents. There is no history of overt psychopathology or other significant illness in any other family member. D.C. and his parents report an unremarkable childhood. He tended to be reclusive and excelled in his studies but was not regarded as troubled in any way. He recounts an experience of seduction by an older girl while he was passing through puberty which left a lasting mark on him. He was too shy to establish comfortable relationships with girls during early and mid-adolescence, but would think often of the older girl as one who might provide all imaginable sexual gratifications. In reality, however, she permitted no more than a platonic friendship after her initial advance. At age 15, while baby-sitting for an older brother's children, he was seized by the impulse to stop an adolescent female passerby for the purpose of making crude sexual demands. He fell victim to this impulse on several occasions, always feeling remorse and chagrin afterward. His behavior at these times was always poorly organized and highly affectively laden; he would paw each of these girls at length and would gruffly demand various kinds of sexual activity but would always anxiously end the encounter before actually completing any sexual act. While a first year student at college he was charged with felonious assault and sentenced to probation for accosting a girl for sexual purposes with a knife. Again, no sexual activity took place, but his behavior was properly recognized as dangerous and impulsive at this time. Psychiatric referral then and on the occasion of his second arrest led only to the recommendation

that he be carefully watched by his probation officer. Psychotherapeutic treatment following his third offense yielded much in the way of fascinating dynamics but nothing in terms of shoring up his ability to resist when struck by the impulse to act. His fourth offense occurred on a day when his ordinary workaday routine had been disrupted by a blizzard. While passing time at a drug store to wait out the worst of the storm, he found himself leafing through an erotically colored magazine and within the hour he had forced a young woman a few doors away to perform fellatio on him.

Treatment with Depo-Provera was considered for the following reasons: 1) The patient was strongly motivated to try anything which held out hope for his being able to lead a normal life; 2) Nothing else had worked or was likely to work; and finally, 3) The near certainty of a long prison sentence this time around made the unknown risks associated with this treatment regimen less forbidding than they would otherwise have been.

The patient, his wife, and his parents all readily consented to his receiving thrice-monthly injections of 300 mgs. of Depo-Provera over an indefinite period of time. Psychiatric examination revealed a bright, obsessive young man whose personality would best be described as schizoid. Baseline endocrinological studies and physical examination were performed. The fall in his circulating testosterone level was rapid, as were the concomitant subjective changes noted by the patient. There was the expected decline in frequency of sexual arousal and erections. He also reported a marked decrease in moods marked by tension, hostility, and irritability. He described this as a welcome feeling of serenity; it stemmed in part, it seemed, from his inner conviction that he was no longer at the mercy of sexual impulses.

On the strength of these subjective reports and the accompanying laboratory data, the presiding judge elected to set bail within reach, and the patient was released from jail. Over the next four months he continued to work regularly and lived happily with his wife. They had married only a few months before his fourth arrest and so both were quite interested in continuing any sexual activity which might be possible. To their considerable mutual satisfaction, he was able to perform quite satisfactorily two to four times a week when both were relaxed, mutually interested in sexual activity, and prepared to devote the several minutes necessary to getting him ready. He was able to ejaculate regularly, though he did note problems on occasion in maintaining an erection, particularly within the first two or three days after the injection. Both described their "post injections" sexual experience as pleasantly relaxed and free of the frantic activity that had surrounded their earlier relations. During all of this time he regularly reported the complete absence of any thought of acting in a sexually predatory way and the absence as well of the mood characterized by physical tension, hostility and irascibility which regularly preceded the appearance of the antisocial impulses. It is also important to note that he tolerated the medication extremely well and that his endocrine status showed no subjective or objective evidence of change save, of course, for the above noted effects attendant on the decrease in circulating testosterone.

During this time the patient's attorney had managed to negotiate with the Assistant District Attorney to enter a plea of guilty to a felony two degrees less serious than the one with which he was originally charged. This left the judge with the option of a sentence ranging from probation to a maximum of seven years in a state correctional facility. Despite his having become quite familiar with the rehabilitative potential inherent in the treatment regimen developed in this case, he chose the latter. He explained to reporters that since there was no guarantee of continued success when the patient was eventually withdrawn from the medication, he could not assume the risk on behalf of society for allowing the man to remain out of jail. He was applauded for his decisive and effective judgment. No consideration was given to the fact that the patient will be on the street in less than five years with minimal parole supervision and no effective medical and psychiatric care at all.

The second case is similar in most respects to the first and so will not be described in detail. J.S. is a 30-year old, white, married father of two who was indicted on charges of first degree rape. He had never been arrested before, although he did confide in the examiner that his pattern of sporadic, sexually assaultive behavior had first become manifest about a year before his arrest. He was responsible for upwards of a dozen rapes and attempted rapes.

Despite a tendency toward emotional lability (quickness to anger, tears, etc.) and toward the sporadic excessive consumption of alcohol, J.S. had made a satisfactory occupational and social adjustment. He was regularly employed as a machinist and was looked on by his wife as a good husband, father, and provider. There was no evidence of psychosis, significant characterlogical pathology, or cognitive impairment evident on examination. It was clear from the history that the impulse toward violent sexual crimes had first erupted in the context of a series of personal and financial set-backs which reduced his already perilously low self-esteem to the point at which he was no longer able to contain his anger. The first assault occurred while he was decidedly under the influence of alcohol. He tended thereafter to drink more frequently and heavily. He noted that once the taboo against the aggressive sexual conduct had been breached, he could mount very little in the way of effective resistance to the impulse, despite strong feelings of remorse afterward.

He was treated with Depo-Provera, 300 mgs. IM every ten days, and Antabuse, 500 mgs. administered in the clinic in suspension form three times a week. Again, the judge (different from the one presiding in the previous case) elected to set bail within reach on the strength of the promising treatment program which was to be administered under the careful supervision of the court. Again, the patient gave every evidence of an excellent response to the medication. However, the sentence handed down five months later reflected the judge's ambivalence toward allowing an aggressive offender to remain in the community. He thanked the therapists for all they had done to develop a comprehensive, community-based rehabilitative program and then sentenced the patient to four years in prison.

T.L. is a 16-year old boy who was indicted for first degree sodomy which consisted of forced anal intercourse with an 11-year old boy. He had been arrested several times previously for heterosexually assaultive behavior and had been remanded by the Family Court for two periods in the State Agricultural and Training School. The most recent arrest was his first as an "adult," occurring shortly after his 16th birthday.

T.L. is the younger of two siblings born to a postal worker and housewife. The family has been stable and T.L.'s older sister, now 21, grew to adulthood quite uneventfully. He was referred to the Neurology Clinic at age 8 because of a series of aggressive acts in school with little provocation. The diagnosis of Petit Mal Epilepsy was made on the basis of the history and an abnormal EEG. He was treated for the next two or three years with anticonvulsants, but these were finally stopped since they seemed to have no truly beneficial effect on his behavior. His academic performance, never above average, declined, and he became the bane of his teachers' existence because of increasingly dramatic and impulsive aggressive outbursts; e.g., on one occasion, because he was refused permission to leave class to go to the boys' room, he jumped out a second floor window and ran home.

On reaching puberty at age 12 he became involved in a series of random, driven sexual behaviors for which he was apprehended on several occasions. These involved exposing himself, "grabbing" (i.e. approaching women from behind, grabbing them in the genital area, and then running off), and "tracking" (i.e., tailing a girl or young woman much as a private eye might). The "tracking" episodes took up the better part of a day and did not result in his accosting the girl for sexual purposes, although he was well aware of his sexual interest in the girl. Most disturbing, however, were two disorganized, impulsive sexual attacks on preadolescent girls. In each instance his intent

was to gain the young girl's cooperation in sexual activity. However, he became frightened when they showed some resistance and subsequently beat both girls severely. Balint has noted the need for "the work of conquest"[8] in which one induces the desired object to become a cooperative partner. Clearly T.L. had not mastered even the rudiments of this complex ego function and seemed to be equally without any effective capacity for restraining or otherwise modifying the potent drive toward sexual gratification with another person that would well up within him from time to time. He was sentenced to the State Agricultural and Training School for 18-month periods after both of these assaults and thus spent most of his early adolescent years in the reformatory. While there, he and another youngster had anal intercourse with each other from time to time, although neither considered himself homosexual or physically attracted to the other. Several months after his release from the training school, he was taunted by an 11-year old boy in the neighborhood who knew of his previous sexual misconduct. He responded to this by angrily forcing the youngster to submit to anal intercourse. While on bail for this charge he was arrested again for refusing to allow a female hitchhiker he picked up to leave his car.

During initial evaluative meetings T.L. seemed to be a handsome, likeable, soft-spoken youth in genuine distress over his inability to refrain from behaving in so impulsive, offensive, and poorly controlled a way. He strongly wished for some effective means to rid him of these impulses which he knew he would be unable to control. Though he tended to be non-verbal and affectively bland, his accounts of the impulse coming over him and of his subsequent behavior were chilling. It was clear that he was at risk of causing the death of any of his victims. There was no evidence for psychosis on clinical interview as well as projective psychological tests, but his EEG continued to show non-specific abnormalities.

At T.L.'s and his parents' request, he was started on Depo-Provera 300 mg. Im every ten days. This has been later reduced to 250 mg. IM every two weeks. An hour-long directive psychotherapy session is conducted when he comes for the injections. He has been on the medication for the past eight months as of this writing. He tolerates the medication with no difficulty at all and reports complete relief from the sporadic impulse to misbehave sexually. He has returned to school, works part time, and for the first time has been able to socialize comfortably with girls. On the strength of the above, as well as the defendant's age, a third judge recently sentenced him to a lengthy probation term with continued treatment a condition of that sentence.

Discussion

Others have reported troublesome side effects from Depo-Provera used in these high doses.[9] These include weight gain, lassitude and nocturnal hot and cold flashes. None of the three patients reported had significant weight gain or nocturnal body temperature dysregulation. D.C. and J.S. initially reported loss of energy, but this complaint left them within a few weeks. T.L. reported no side effects save for a welcome decrease in his acne. The two married men were able to continue sexual relations with their spouses to a satisfactory degree. The third, T.L., claimed that he had no interest in sex and no longer masturbated at all. All three were quite pleased with the results of the treatment, both with regard to the defusing of their destructive sexual energy and the concomitant mellowing of their temperaments.

Although Depo-Provera is not approved by the Food and Drug Administration for the condition described (the more potent antiandrogen, cyproterone, is not approved for any condition by the FDA), there is reason to take judicious risk in the area of further clinical trials. Ayd has admonished us against an overly conservative stance when prescribing medications, lest our patients be denied their right to effective therapy for illnesses severe enough to otherwise disable them.[10] Although far too few cases have

been followed long enough into the critical post-medication period to warrant even a discussion of its curative potential, it is clear that it can provide effective, time-limited relief from unwanted sexual urges. We need to continue to explore the limits of Depo-Provera's effectiveness so that we can accurately characterize that segment of the group of impulsive sexual offenders who will respond to this addition to the overall treatment program. Then we must promulgate this new therapeutic opportunity so that families, judges and others who were previously without hope may extend that hope with us to this small group of now treatable patients.

TABLE I

Plasma Testosterone Nanograms %

Patient	*Before Treatment*	*One Month after Beginning Treatment (300 mg. Depo-Provera IM 10 days)*
D.C.	461	28*
J.S.	810	110
T.L.	760	207**

* Shortly before sentencing this value was noted to be 9 ng. %.
** One month later this value had dropped to 40 ng. % on the same dosage, which was then reduced to 250 mg. every two weeks.

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