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## Antiandrogenic and Counseling Treatment of Sex Offenders

RATIONALE FOR DEPO-PROVERA TREATMENT OF SOME SEX OFFENDERS Studies begun at Johns Hopkins in 1966 have shown that sex offenders or paraphiliacs, for example, pedophiliacs, treated with the antiandrogenic hormone, Depo-Provera, plus counseling have gained in self-regulation of sexual behavior. Depo-Provera suppresses or lessens the frequency of erection and ejaculation and also lessens the feeling of libido and the

mental imagery of sexual arousal. To illustrate: For the pedophiliac there will be a decreased erotic "turn-on" to children. Metaphorically, this medication can be thought of as an appetite suppressant for the sex drive, intended to make self-governancy easier, usually with the help of adjunctive individual or group counseling.

ANTIANDROGENIC EFFECT OF DEPO-PROVERA Depo-Provera, a long-acting, injectable form of medroxyprogesterone acetate manufactured by Upjohn, is a synthetic progestin which is classified pharmacologically as an antiandrogen. Antiandrogen inhibits the release of androgen, the so-called

male hormone, from the testicles. Some progestinic hormone is normally present in the male body but at a very low level. Increasing the level allows progestin to compete with androgen and to take over. Androgen is a sexual activator. Progestin is sexually inert. It therefore induces a period of sexual quiescence in which the sex drive is at rest.

MODE OF ENDOCRINE ACTION In terms used by endrocrinologists, Depo-Provera inhibits, through its effect upon neural pathways in the brain, the release of luteinizing hormone (LH) from the pituitary gland. LH is the chemical messenger which normally stimulates the

testicles to produce androgen. Hence, the ultimate effect of Depo-Provera is to reduce the level of androgen, especially testosterone, in the blood stream. Typically, in the adult male, Depo-Provera reduces the blood level of testosterone to that of a normal prepubertal boy (from approximately 575 nanograms/100 milliliters to 125 nanograms/100 milliliters).

BRAIN -

In addition to lowering the level of testosterone, Depo-Provera like all progestinic hormones, acts on the brain. Most patients feel relief from an urge that was formerly insistent, commanding,

and not subject to voluntary control.

PERIPHERAL PHYSIOLOGICAL EFFECTS Depo-Provera, through decreasing the testosterone level, temporarily decreases penile erection and ejaculation, and the production of sperm (spermatogenesis). This means that a man may not be able to father a child while taking the medication.

The medicine is not feminizing (men do not grow breasts). In addition, the sexual accessory organs, the prostate and seminal vesticles, temporarily shrink. Increased

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drowsiness, and weight gain, as well as increased blood pressure can occur. Other occasional side effects are discussed in papers published as a result of work in this clinic. Those papers are available.

REVERSIBILITY OF CHANGES

The changes attributed to the medication are reversible upon cessation of treatment; within 7 to 10 days erectile and ejaculatory capacity usually begin to return, along with the subjective experience of more sexual drive. However, as use

of this medication is still relatively new for sex offenders (first use was in 1966), the possibility of irreversible or more long-term side effects cannot be completely excluded.

DOSAGE LEVEL

Tailored for the specific patient, intramuscular injections of Depo-Provera range from 100 milligrams to 800 milligrams every seven days. The typical weekly maintenance dosage of Depo-

Provera for sex offenders is 500 milligrams.

HORMONAL MONITORING Hormonal measures of testosterone and LH (Luteinizing Hormone) initially can be monitored periodically to gauge the effectiveness of the dosage. The recent application of radio-immuno-

logical techniques to the assay of testosterone and LH has made such endocrine monitoring precise, reliable, rapid, and relatively inexpensive, as compared to prior methods.

NO INCREASED TOLERANCE

Most patients do not require a progressively increasing dosage, because there is no tolerance build-up to Depo-Provera. However, some may require dosage changes.

COMPARISON WITH SURGICAL CASTRATION Prior to the discovery, manufacture, and medical use of antiandrogen, the method of reducing the level of testosterone in men was surgical castration. Used in many societies throughout history, castration is disfavored in contemporary American legal-medical management of sex offenders. Obviously, surgical

castration is irreversible. Castration increases levels of LH from the brain whereas medication lowers these levels.

BEHAVIORAL EFFECTS OF DEPO-PROVERA TREATMENT

In some cases, it is possible for patients to be weaned off Depo-Provera. Since the weaning is a step-by-step lowering of the hormone dosage, it is possible for the patient to discover how completely he has become relieved of the tendency to engage in the sex offending behavior, both in actuality and imagina-

tion. In some cases, there is a long-lasting remission, so that the patient is no longer compelled to commit sex offenses, but is enabled to have a sex life with a socially suitable consenting partner instead. Some patients prefer to continue on a low, maintenance dosage of the medication so as to ensure a maximal guarantee of no relapse. Those patients who establish a strongly pair-bonded relationship with a permanent partner often seem to do better in the long run. The counseling component of treatment facilitates this achievement and is essential. If for some patients the medication aids only as a sexual appetite suppressant, then stopping the medication would increase the risk of relapse. If the person should again become tempted to repeat his strong, unconventional sexual compulsion (e.g., for children, or to expose publicly), then resumption of treatment would be advised.

COMPLIANCE

Some patients, as in all specialties of medicine, are more faithful than others in adhering to medication schedules. Some overly confident patients drift into non-compliance. Other patients neglect specific instructions about their medication schedule. Therefore, patients in our program as a condition of parole or probation who are not compliant are reported to the proper authorities. Information communicated to us by the patient in therapy, however, is maintained as confidential.

STATISTICAL ASSESSMENT

Sex offenders treated with Depo-Provera at Johns Hopkins are kept in long-term follow-up. Most patients have been able to self-regulate their sexual behavior while receiving the medi-

cation. Those who have stopped medication against medical advice have often relapsed.

COUNSELING THERAPY

Counseling sessions are provided weekly, at first, and then may be tailored to individual needs. These sessions are intended to help the patient to establish a new life-style.

They are also intended to help the patient cope with the problems that have developed as a consequence of his prior life-style. Therapy may occur either individually or with groups.

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