

Treatment of Sex Offenders with Depo-Provera

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Medroxyprogesterone acetate (MPA) is capable of reducing male testosterone blood levels with a corresponding reduction in sexual interest and activity. An attempt to evaluate its effectiveness with court committed sexual offenders was made with eight subjects each serving as his own control by alternating Depo-Provera injections for 16 weeks with saline injections for a corresponding 16 weeks. This paper reports the results of this study and the conclusions that appear to be appropriate.

California abolished its Mentally Disordered Sexual Offender Laws January 1, 1982. On that date, there were over 500 MDSOs in Atascadero State Hospital. By 1984, there still remained over 270 hard-core offenders. Hard-core offenders were repeat offenders or patients who had not achieved a recommendation for outpatient treatment after more than two-and-a-half years in the hospital.

Depo-Provera (medroxyprogesterone acetate [MPC]) had been used since 1968 to modify sexual behavior by a variety of investigators, generally with favorable results.¹⁻⁷ The source of Depo-Provera's biological effect is not exactly known. It is believed that sexual arousability is facilitated by testosterone, and it is known that Depo-Provera diminishes testosterone production. However, it is also known that Depo-Provera has a sedating, even an anesthetic, effect

upon the central nervous system. In spite of the unknowns the question raised was could its effectiveness be reliably assessed in a maximum security hospital with court committed sexual offenders.

Atascadero State Hospital was actively using a variety of treatment modalities including individual and group therapy, sex education, behavior modification, psychodrama, Alcoholics Anonymous, Social Skills Group, education, and occupational and recreational therapy. All these efforts were directed at helping the patient to make a better adult social adjustment and eliminate sexual deviant behavior.

The hospital also had a fully equipped sexual behavior laboratory capable of measuring male sexual responses to a variety of visual-auditory stimuli and self-generated audio cassettes of fantasies. The laboratory was equipped with mercury filled strain gauges capable of accurately measuring penile responses to stimuli.⁸

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In order to attempt to answer the question of the effectiveness of Depo-Provera in this setting, eight volunteers were chosen for a research project. Four subjects completed the proposed 64-week study, and the remaining four completed 22 to 34 weeks of the study.

The volunteers were less than 40 years of age, in good physical health, and free of serious mental disorders such as psychosis, mental retardation, affective disorder, or organic brain syndrome. They had to be capable of giving informed consent after all of the possible hazards were thoroughly explained.

The effectiveness of Depo-Provera was evaluated by patients' self-reports and sexual behavior laboratory measurements. All the patients were continued with their regular treatment programs, and the Depo-Provera evaluations were an added feature.

The patients were given injections weekly of a substance identified only as research material and told that MPA (Depo-Provera) was being given in variable doses from zero to 400 mg per week. The syringes were prepared by the hospital pharmacist and the material injected by a nurse in the medical/surgical clinic, which was entirely separate from the patient's home ward.

The treatment staff was unaware of the dosage and quality of the research material, as was the sexual behavior laboratory and the patient. Blood testosterone levels were determined every two weeks and the dosage of MPA or saline adjusted dependent upon the blood testosterone level. The goal was to maintain the subject's plasma testosterone level

lower than 250 ng/100 ml as suggested by Gagne.⁵

Each patient served as his own control, and for 16 weeks was given MPA in dosages of 100 to 400 mg per week or injections of sterile saline in comparable liquid volume. The MPA and sterile saline were to be alternated in each patient for four blocks of 16 weeks covering a total of 64 weeks.

Each patient self-reported daily such things as frequency of fantasies and masturbation in response to deviant and nondeviant fantasies. He also reported on possible side effects of the medication.

Each patient was evaluated weekly in the sexual behavior laboratory to measure his arousal to deviant and nondeviant stimuli. The assumption existed that when the subject was receiving MPA and his testosterone level fell to below 250 ng/100 ml, his rate of masturbation to both deviant and nondeviant fantasies would decrease. It was also assumed that sex lab evaluations would show a decline significantly to both deviant and nondeviant stimuli. Furthermore, it was assumed that when the patient was in the 16-week segment of saline injections his responses would be similar to his pretreatment evaluations. Figure 1 represents the anticipated serum testosterone level responses to MPA or saline.

When serum testosterone levels were low, it was anticipated that rates of masturbation to deviant and nondeviant fantasies, if reliably reported, would also be low and high when the testosterone levels were high.

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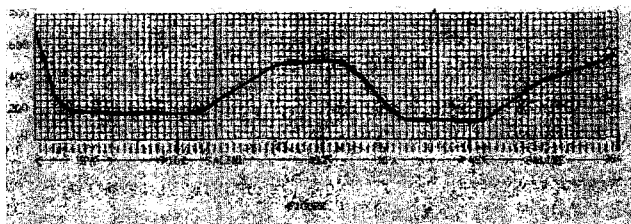


Figure 1. Anticipated serum testosterone level responses to MPA or saline.

Finally, it was anticipated that measured penile erection responses would be significantly modified if the subject was on the MPA 16-week cycle.

Subject 1

A 25-year-old rapist on the MPA-saline-MPA-saline sequence self-reported by the seventh week no deviant fantasies and *no* masturbation to either deviant or nondeviant fantasies. By the sixth week, his sex lab results were insignificant arousal to deviant rape and 75 to 100 percent arousal to nondeviant (consenting adult) stimuli (Fig. 2). Sex laboratory arousal rates of less than 20 per-

cent are not considered significant. The reported masturbation frequencies and sex lab results were unchanged throughout the 64 weeks regardless of saline or MPA injections. The interpretation of these results is either an excellent example of behavior modification based on suggestion or inaccurate reporting and noncompliant behavior in the sexual behavior laboratory, probably the latter.

Subject 2

A 38-year-old pedophile on the saline-MPA-saline-MPA sequence was apparently cooperative. His reported deviant

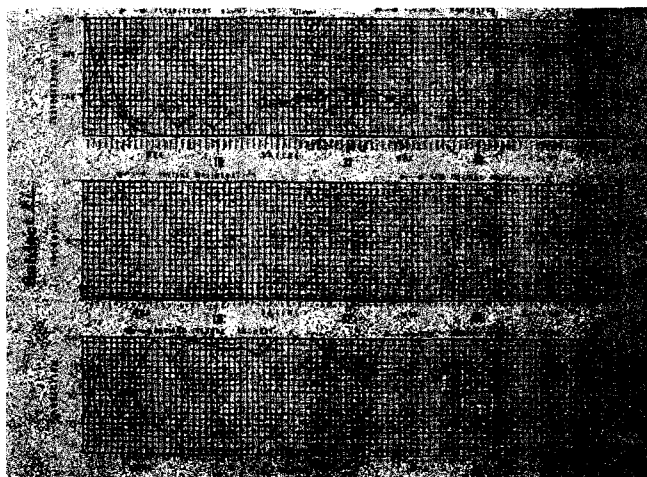


Figure 2. Subject 1.

sexual fantasies were significantly reduced by saline and *increased* by MPA. This paradoxical result is either the result of suggestion, inaccurate reporting, or an attempt to overcome the effect of MPA by use of previously learned effective fantasies. The remainder of the studies, however, suggest inaccurate reporting. His rate of masturbation was not influenced by MPA. His penile responses to child deviant stimuli was too variable to be certain as to the effect of saline versus MPA. His penile responses to nondeviant stimuli (adult) were unaffected by either saline or MPA and generally low. It should be noted however, that once his testosterone level was lowered by Depo-Provera during weeks 16 to 32, it increased moderately during the saline phase weeks 32-48 and did not rise above the recommended 250 ng/100 ml level (Fig. 3).

Subject 3

A 28-year-old pedophile on the MPA-saline-MPA-saline sequence indeed did

report a decrease in deviant fantasies that coincided with a decrease in masturbation to deviant stimuli during the first 16-week MPA period. However, his reported masturbatory activity remained constant after the first 16 weeks. His penile response to deviant sexual stimuli was reduced during the first 16 week period coinciding with his decrease in deviant fantasies. The next 48 weeks, however, were quite erratic and equivocal from which conclusions could not be reached (Fig. 4).

Subject 4

A 30-year-old pedophile on the MPA-saline-MPA-saline sequence reported a decrease in deviant fantasies and a decrease in deviant stimuli masturbation during the first 16-week MPA sequence. His sex lab measurements revealed a corresponding decrease in deviant sexual arousal during the same 16 weeks. Thereafter, he accepted the injections

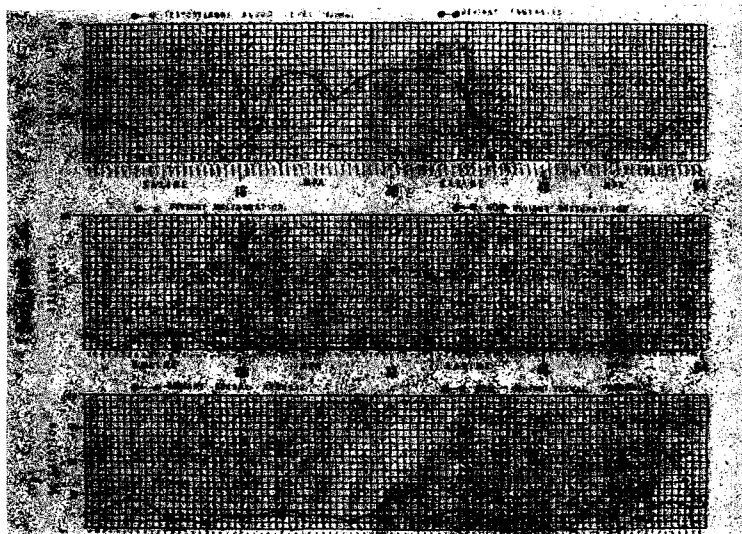


Figure 3. Subject 2.

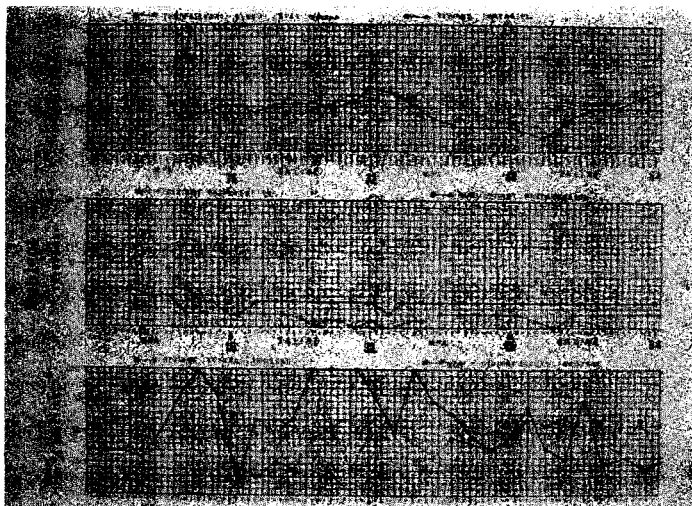


Figure 4. Subject 3.

and serum testosterone studies but refused to cooperate with penile measurements or engage in self-reporting. Of interest was the fact that his testosterone levels did correspond with anticipated levels. There was a prompt decrease in serum testosterone levels with the MPA injections and a six to eight week delay in return to normal during the saline injections (Fig. 5).

Subject 5

A 21-year-old rapist and attempted murderer on the saline-MPA sequence. He was returned to court on a writ to complete his sentence in prison after 32 weeks on the study. His testosterone blood levels were as anticipated unchanged from the baseline during the saline injections and low on the MPA injections. His reported deviant fantasies were significantly decreased by MPA. His frequency of masturbation was minimally reduced by MPA. His measured penile responses were inconclusive, probably reduced by MPA (Fig. 6).

Subject 6

A 33-year-old pedophile was on the saline-MPA-saline-MPA sequence. His deviant fantasies, rate of masturbation, and nondeviant penile arousal were all significantly lowered during the saline injections. After his fifth MPA injection, he complained that his testicles were shrinking and withdrew from the research project. Physical examination revealed no change in the size of his testicles. It only can be assumed that he noted a reduction in his sexual desires or had difficulty obtaining an erection (Fig. 7).

Subject 7

The seventh subject was a 29-year-old pedophile whose victims were both male and female children. He was on the MPA-saline sequence for 32 weeks when he developed signs of borderline glaucoma, and the injections were promptly stopped. Of interest, while he was on MPA, his deviant fantasies were re-

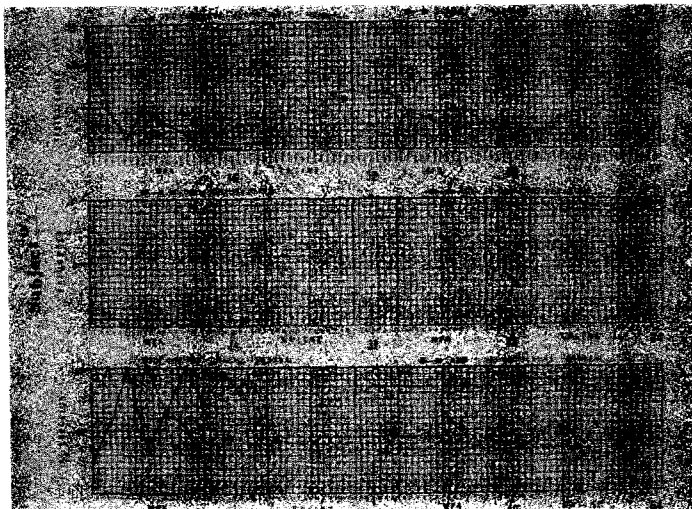


Figure 5. Subject 4.

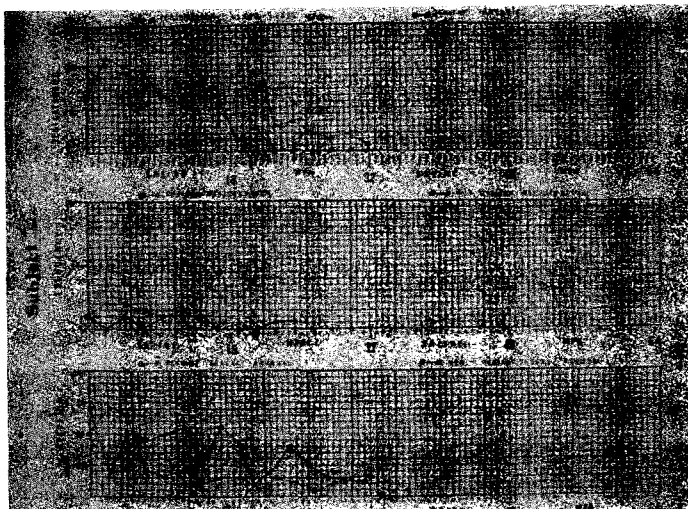


Figure 6. Subject 5.

duced, as was his rate of masturbation to deviant stimuli. His nondeviant masturbation and nondeviant sexual arousal were minimally influenced. During the saline phase all of his reports and measurements were unchanged. However, his testosterone level once reduced by MPA remained low during the saline phase. It returned to normal five months after his last MPA injection (Fig. 8).

Subject 8

The eighth subject was a 31-year-old pedophile who molested both male and female children. He was on the MPA-saline sequence and complained of headaches after the 26th week of injections and requested the experiment be stopped. While on MPA, he reported decreased deviant fantasies and de-

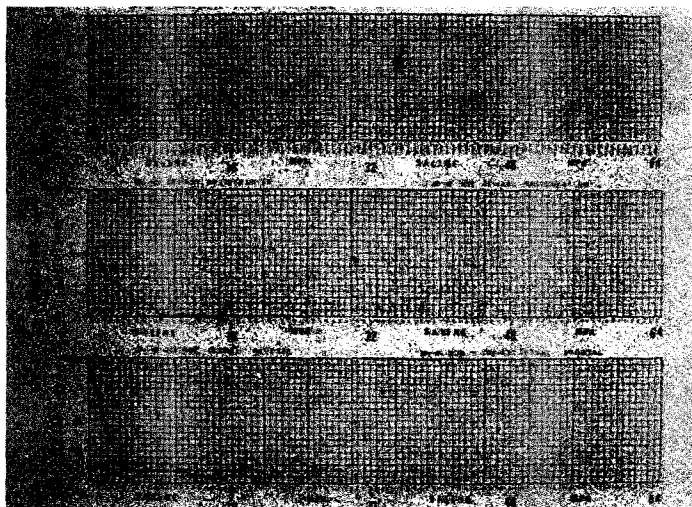


Figure 7. Subject 6.

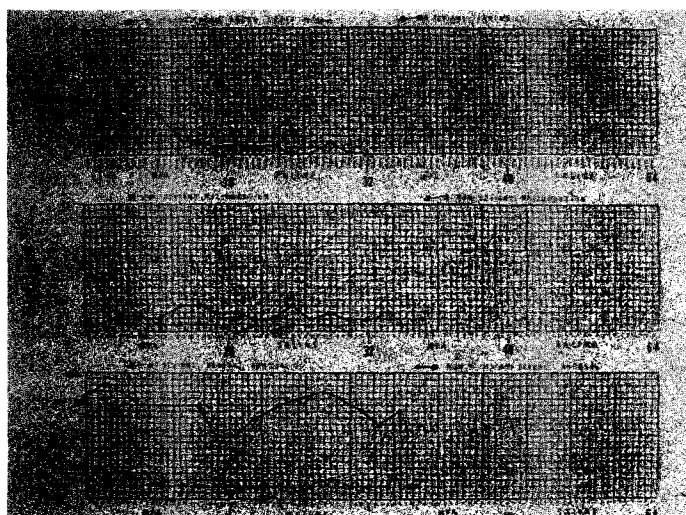


Figure 8. Subject 7.

creased masturbation. His sexual arousal was little influenced by the MPA injections, especially his arousal to male children (Fig. 9).

Discussion

Almost all hard core incarcerated MDSO patients have as their primary concern release from confinement. There seems little doubt that our sub-

jects generally self-reported what they felt were desirable responses. Although some did, the majority did not experience the results expected from MPA versus the saline injections. Favorable results were obtained with either injected substance.

The sexual laboratory measurements likewise were too variable and inconsis-

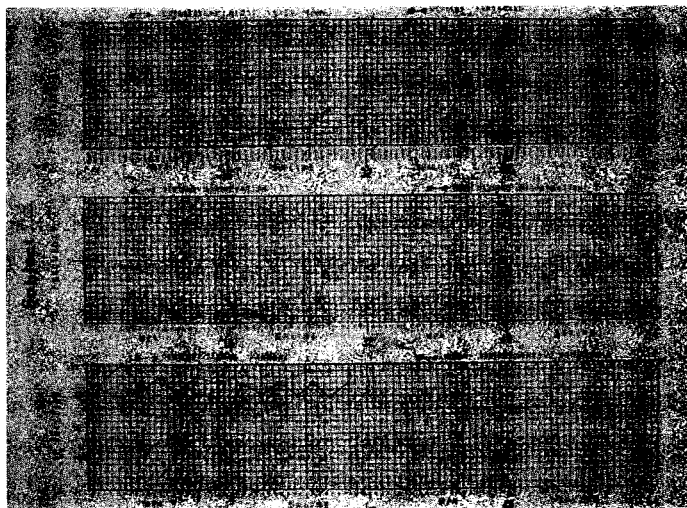


Figure 9. Subject 8.

ent to accurately determine the MPA dose necessary to reduce penile responses to deviant and nondeviant stimuli. Although the majority of the patients demonstrated decreased sexual arousal during the MPA injections, they also demonstrated decreased arousal during the saline injections.

We have learned, however, some things about our subjects and the possible use of MPA in this setting.

1. Serum testosterone levels varied significantly in the same individual prior to any injections.

2. In two of our eight subjects, testosterone levels returned to pretreatment levels in six to eight weeks after the last MPA injection in each sequence. However, the majority required longer to return to pretreatment levels. This fact alone could explain the failure of our results to follow the expected course.

3. These subjects and other patients outside of the research group demonstrated that MPA does reduce compulsive masturbation.

4. Although MPA decreases sexual drive, it did not change the object of the sexual drive, i.e., pedophiles remained interested in children.

5. Although all our subjects reported a decrease in deviant fantasies, this was not objectively substantiated by the sex lab results.

6. It is felt that the results of treatment of hard-core MDSOs with MPA in this incarcerated setting is inconclusive and an unreliable means of predicting appropriate dosages and probable favorable outcome.

7. In no way is it suggested that these results are applicable to cases of paraphilia that are truly voluntary, desirous of altering their sexual behavior, and cooperative.

8. Finally, although sexual desires and impulses are influenced by blood testosterone levels, which can be modified by MPA, there are indeed other influences such as cognition, learned behavior, and probably many other factors

involved in this complex human behavior.

9. An interesting follow-up revealed four of the patients were returned to court for sentencing. Three are still in the hospital. One patient (No. 1) succeeded in obtaining outpatient treatment status; however, he reoffended after one year and is currently serving a long prison term.

Acknowledgments

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