

ORIGINAL ARTICLE

Anti-libidinal medication among sex offenders: a descriptive study from a specialized outpatient unit in Bordeaux (France)

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Enhancements in the treatment of sexual offenders have been taking place for over four decades. The development of pharmacological therapy has helped to reduce the risk of re-offense and has demonstrated its utility in combination with psychotherapy. However further studies to demonstrate the efficacy of these therapies are required. We conducted a retrospective study in a unit, Erios, that provides care for sexual offenders (court ordered treatment or voluntary treatment). Among the 224 patients who were seen in the Erios unit over the past 15 years, we identified 23 patients who had received anti-libidinal treatment (ALM) at some point in their care. The results, obtained from 22 files, indicate that 16 patients presented no evidence of deviant fantasy or behavioral relapse under medication. This study also highlights the comorbidities and offers a perspective regarding the improvement in prescribing this type of pharmacological therapy.

Key words

Anti-libidinal treatment, Antiandrogen treatment, Sexual Offenders, cyproterone acetate, criptorelin embonate, GnRH analogues, Recidivism

Introduction

The use of anti-libidinal medication (ALM), along with psychotherapy, is often considered in the treatment of sexual offenders [1-3]. In 2014, the *Haute Autorité de Santé* (HAS, French national authority for health, an independent public authority of a scientific nature) noted the absence of any framework or study to evaluate the efficacy of anti-libidinal medication in the treatment of paraphilia [4]. Anti-libidinal treatment has been used for more than 40 years, mainly in North America [5-7]; outcome for different

treatments has been studied in the literature to a limited degree [8]. Approximately 10 years ago, some of these medications obtained marketing authorization for use in France [4]:

- cyproterone acetate, in April 2005 in France for a “reduction of sexual impulses in paraphilia in association with psychotherapeutic care”. It is used for its antiandrogen action. The maximum daily dose is 200 to 300 mg.
- triptorelin embonate, in August 2007 in France for a “major reversible reduction of testosterone levels in order to decrease sexual impulses in adult male with severe sexual deviances”. It is used for its inhibitory action on the gonadotropin hormones. The recommended dosage is 11.25 mg injection every 12 weeks.

Others GnRH analogues medication are used but outside of marketing authorization (approval from the French Drug Agency; such as triptorelin pamoate, leuprorelin and goserelin).

In France, anti-libidinal treatment may be offered to a patient sentenced by a court, or may be requested by the patient themselves. The conviction of the court does not specify the type of treatment to be used (pharmacological, psychotherapy...), and the options are left to the discretion of the clinical team. The judge orders care if a psychiatric assessment ordered by the court has previously specified that care was indicated. Even though the order of care is made, the convicted person has to consent to treatment, especially medication, and cannot be treated against his/her will; if

he/she refuses all care, a custodial sentence can be ordered by the judge [9].

Whether the pharmacological treatment is given at the request of the patient, or following a treatment order from the court, it is important to know the limitations that the patients and clinical team have encountered, and what the outcomes were. A better knowledge of this therapy is needed to enhance its use. The aim of the study is to provide an overview of the cases where an anti-libidinal treatment was prescribed to individuals convicted for a sexual offense.

Material and Methods

We conducted a retrospective study, selecting the files from the Erios unit at the Charles Perrens Hospital in Bordeaux. The Erios unit has three components: Criavs Aquitaine, a resource center for the professionals providing care to sex offenders in Aquitaine; Inter-CD, a mobile care team for the sex offenders incarcerated in the penitentiary establishments in Aquitaine; and Dispo-33, an outpatient unit for sex offenders who were sentenced to a court ordered treatment in Gironde territory.

To be included in the study, the patient had to be a male aged 18 years or more, who was seen in consultation at least once at our outpatient unit (Erios Dispo-33), between January 2001 and February 2016. These patients must also have received an anti-libidinal medication (ALM) sometime during their medical care (at Erios or outside, before or after his follow-up within Erios unit).

We obtained the consent of the participants to consult their files for the purpose of this research study. When the subject was incompetent to consent to treatment, we obtained the consent from their substitute decision maker. The conduct of the study followed the local regulation of research ethics.

From these files we gathered socio-demographical data (gender, age, relationship), history of childhood abuse, psychiatric

conditions, the time of the initiation of the ALM, the statement made by the patients regarding benefits and side effects of the treatment, and the criminal records pre and post initiation of the treatment.

Results

Among the 224 adult males who were seen in the Erios unit since 2001, 23 patients (10.27%) received ALM sometime during their care. Not all the information researched was available in each case. Some of the data detailed below are summarized in the Table 1.

Socio-demographical and personal data

The average age was 44 (from 19 to 85 years old) and 74% were between 30 and 60. Only 18% were living with a partner at the time they received the ALM (n=3/17). Among the subjects 39% (n=9/23) were declared legally incompetent to care for themselves (which in French legislation relates mainly to the incapacity to manage property), and had a substitute decision maker.

Regarding childhood history, 25% declared that they had suffered from sexual violence during their childhood (n=4/16).

Criminal records and legal dispositions

Almost two thirds (61%, n=14) had sexually reoffended (re-offense being considered from a clinical viewpoint and not only a legal one). Prior non-sexual offenses were found in 19% (n=4, out of 21 completed); these individuals were mostly sex offenders of female adult victims (75%, n=3).

According to their legal dispositions, 65% (n=15) were subjected to a treatment order whereas 35% (n=8) no longer or never had a treatment order in place. The latter were considered to have voluntarily requested treatment.

Among the patients undergoing a treatment order (n=15), about half of them (n=8) requested the ALM be mentioned in the health-care certificate provided by the psychiatrist; then, the patient provides the cer-

tificate to his probation officer, as evidence of regular psychiatric follow-up.

Clinical and criminological aspects

The sexual offenses that were the origin of the request for treatment (either spontaneous or on treatment order) were hands-on offenses in 83% of the cases, involving minor victims (57%, n=13) or adult victims (26%, n=6). The rest of the individuals (17%, n=4) were hands-off offenses (child-pornography on the internet, exhibitionism, voyeurism with breaking entry).

Eight patients (35%) did not present with any diagnostic criteria for paraphilia and 15 patients (65%) suffered from at least one paraphilia. Among 20 diagnoses with paraphilia, pedophilia was the most frequent (70%), followed by exhibitionism (15%), voyeurism (10%) and fetishism (5%). Among the individuals who have a diagnosis of pedophilia (n=14), their sexual orientation was noted as homosexual (57%, n=8), heterosexual (21.5%, n=3) or bisexual (21.5% n=3).

Psychiatric comorbidities were identified in 91% of the patients (n=21); this includes the lifetime comorbidities after the initiation of ALM. It was found that patients suffered from mood disorder (n=9), intellectual disability (n=8), hypersexuality (n=8), alcohol use disorder (n=5), autism spectrum disorder (n=2), schizophrenia (n=1), and severe personality disorder (n=1).

Anti-libidinal treatment

The period between the first information about ALM provided to the patient and the first dose taken was available from 20 files. This period was approximately 2 months for two thirds of the patients (n=13), corresponding to the pre-treatment evaluation (including laboratory testing) and to the time that the patient took in order to consent for the treatment. For one third of the patients (n=7), this period was much longer and varied from 13 to 60 months (up to 5 years). Among these 7 patients, 72% (n=5) reoffended (sexual offence) between the first piece of data and the initiation of ALM.

Regarding the patients who stopped taking an ALM, we collected relevant information for 11 of them (3 patients had interrupted their follow-up and no information was available regarding their care; 9 patients continued to receive treatment). The average duration of ALM treatment among these 11 patients is 42.9 months. The duration of the treatment differs whether the decision of ending the treatment was a medical decision (58 months) or a patient decision (24.8 months).

The reasons why ALM was stopped are known for only 10 patients. In about 50% of cases, it is the acknowledgement of a stable full remission of the sexual deviance that resulted in stopping. The other reasons for ending treatment included the patient's exclusive request (n=2), an incarceration (n=2), and the end of court ordered treatment (n=1). Among the patients who were undergoing a court ordered treatment, 75% decided to continue ALM (n=6 out of 8). One patient whose ALM was stopped because of the remission of his deviant fantasies asked for a reintroduction of the treatment a few months later due to the resurgence of these symptoms.

Among the patients whose ALM treatment was ongoing (n=9), 7 patients received ALM without interruption since its initiation and the average duration of ALM treatment was 67.57 months (from 18 to 131 months).

Regarding tolerance of the ALM and its potential side effects, 13 patients (57%) did not report any complaints. The most frequent side effects reported were asthenia, hot flushes, pain, headaches, dizziness, weight increase, cognitive disorder and depressive syndrome (which was attributed to the initiation of ALM and responded well to antidepressant).

Regarding compliance to the medication, it was noted that 6 patients presented poor adherence to oral treatment (cyproterone acetate) and 3 other patients unexpectedly stopped their injection therapy (triporeline embonate).

Table 1 – Summary of the socio-demographical, clinical and criminological data

Re-offense prior to being started on ALM	14/23 (61%)
Treatment order in place	15/23 (65%)
Most recent sexual offense	
Hands-on	20/23 (87%)
- <i>minor victim</i>	13/20 (65%)
- <i>adult victim</i>	6/20 (30%)
- <i>minor and adult victims</i>	1/20 (5%)
Hands-off	3/23 (13%)
Diagnosis of paraphilia	15/23 (65%)
Psychiatric comorbidities	21/23 (91%)
Delay initiation ALM	
About 2 months	13/20 (65%)
From 1 to 5 years	7/20 (35%)
Cessation of treatment	11/20 (55%)
Reason for stopping the treatment	10/11 (91%)
- <i>Improvement of symptoms</i>	5
- <i>Patient's exclusive request</i>	2
- <i>Incarceration</i>	2
- <i>End of the court ordered treatment</i>	1
Average duration	43 months
- <i>When stopped by doctor</i>	58 months
- <i>When stopped by patient</i>	25 months
Concomitant use of Antidepressant medication	9/22 (41%)
SSRI	5
Other	4
Compliance	
Poor adherence to oral ALM	6
Unexpected interruption injectable ALM	3
Side effects reported	10/23 (43%)
Behavior while taking ALM	
Re-offense while decreasing dose (oral ALM)	1
Persistent inappropriate behaviour while in institution	3
Meet a minor without offence (breach probation terms)	2

Concomitant use of antidepressant medication

The information about a concomitant use of an antidepressant medication was found in 22 files. It appeared that 9 patients received an antidepressant medication; 5 patients received Selective Serotonin Reuptake Inhibitor (SSRI: escitalopram, sertraline) and 4 patients received a different antidepressant medication (venlafaxine, mirtazapine). Information related to whether the patients under ALM benefited from taking the treatment was available in 20 files: 15 patients expressed an "improved well-being", "relief" and "safety"; 12 acknowledged a decrease of their deviant fantasies; and 4 mentioned a decrease of their hypersexuality (described as problematic by themselves).

along with the ALM. In all the cases, the indication was explicitly because of the presence of a mood disorder (the treatment was not added to improve the effect of the ALM in terms of controlling the paraphilic behaviour).

Clinical and criminological outcomes

Clinical assessment and outcomes were available among 22 files. No re-occurrence of the deviant fantasies or behavioural relapse were found in 16 of the patients. One patient (presenting with homosexual pedophilia) reoffended on cyproterone acetate while the dose was decreased for discontin-

uation of the treatment. Three patients presented with persistent behavioural disorders sexual in nature (these were patients with severe comorbidities and living in a mental health institution). In 2 cases, the individuals did not commit any hands-on offenses, however they entered in contact with a minor, prohibited by the court order (breaching the terms of their probation).

Discussion

Optimizing the treatment and follow-up of the individuals who committed a sex crime is important. The implementation of pharmacological treatment can help to significantly reduce the rate of reoffending. Based on our study, it seems that more health education is required for sexual offenders, to demonstrate the benefit of anti-libidinal treatment.

The rate of the patients, followed at the Erios unit, who have received ALM is 10.27%. Unfortunately, there is no information regarding the number of patients informed about this therapeutic option, how many patients refused to receive the treatment after being informed, and how many did not have good indications or had contraindications according to the physician's assessment. The formal marketing authorization of cyproterone acetate in 2005 and triptorelin embonate in 2007 did not increase the annual average number of ALM prescriptions in Erios unit.

In this study, the typical profile of the patients who received ALM was male, between 40-50 years old, single, subject to a court ordered treatment, had already reoffended, and presented with homosexual pedophilia in association with psychiatric comorbidities (depression, intellectual disability and/or hypersexuality). The main treatment regimen was a GnRH analogue (with antiandrogen in the initial phase) for 3 and a half years. These patients mainly expressed a positive experience, without any serious adverse effect or difficulties during follow-up. It is not surprising that this profile represents the most frequent paraphilia

among our population (n=8, 35%), as they are the people that reoffend the most and appear to have difficulty controlling their deviant sexuality [4,10].

Most of the patients were referred after being convicted for sexual assault on court order, however the assessment conducted at the request of the court was not made available to us in 74% of the cases. It would have been interesting to know the appointed physician of the court's recommendations in terms of treatment, and how the judge finally ruled his/her decision.

We were unable to gather additional data related to the additional therapeutic strategy that the patients underwent. Indeed, psychotherapy is necessary and is often performed without any concomitant medication. However, Erios Unit is not the only place where psychotherapy is provided for sexual offenders. In addition, there is no consistent practice, and different types of psychotherapy are used, which makes it difficult to thoroughly assess its benefit. The only information we can provide is that 6 patients treated with ALM have participated in group psychotherapy sessions at Erios Dispo-33.

Only 65% of our sample had a clear diagnosis of paraphilia; which means that in 35% of the cases, the anti-libidinal treatment was given with no formal diagnosis for its treatment. However, these were often recidivists and despite the lack of a formal diagnosis of paraphilia, ALM showed some efficacy in the majority of our sample. This lack of diagnosis may have been due to certain difficulties in making a diagnosis, and the lack of insight or shame of patients who do not reveal their problems. In addition, 6 individuals in our sample had sexually offended adults and could have been qualified for the diagnosis of paraphilic coercive disorder; a disorder that was initially suggested to be part of the DSM 5 but finally did not get included in the new classification [11].

Psychiatric comorbidities are found at a high frequency in our sample. The fact that 39% of the patients benefit from legal protection and/or live in a psychiatric institution speaks

to their inability to function on their own, which may be explained by the presence of additional mental health disorders. Although hypersexuality is not a clear psychopathological concept and may refer to sexual compulsion, sexual addiction, etc., among the patients who have expressed symptoms that refer to a hypersexual behaviour (35% of the sample), half of them felt relieved by receiving ALM. This demonstrates that a thorough psychosexual assessment could be useful when dealing with sexual offenders.

There was some discrepancy in terms of the delay between providing ALM information and the patient's consent to begin ALM. One group of patients quickly accepted ALM while another group thought for a long time and then accepted it after committing another sexual assault. This is likely something that should be explored in therapy with the "one time" sexual offender. It also must be emphasized that no matter what legal framework of care, the prescription cannot be initiated without the patient's consent as it remains an ethical issue. When there is a clear indication for treatment by ALM but a refusal from the patient, we recommend to have the patient sign a refusal to consent to ALM treatment in order to create a sense of responsibility in his/her own care.

Treatment with GnRH analogues medication, the fifth-level (out of six) of the therapeutic strategy (according to the recommendations of the Force Task of the World Federation of the Biological Psychiatry Associations), concerns the majority of our pa-

tient sample (n=18, 79%). However, we did not check whether they actually met the criteria for this fifth-level before ALM ("Aim: control of paraphilic sexual fantasies, compulsions and behaviours with an almost complete suppression of sexual desire and activity; High risk of sexual violence and severe paraphilias; Sexual sadism fantasies and/or behaviour or physical violence; No compliance or no satisfactory results at level 4") [2]. Of note, none of them were in the sixth-level therapeutic strategy (combination of GnRH analogue and cyproterone acetate). We hypothesized that some patients, actively involved in their care, chose the injectable form rather than daily oral medication for convenience. We consider now having a deeper look in these criteria and see how they apply to our population and how it influences our practice.

The main limitations of this study are related to its small sample, to the lack of information in the files and the lack of objective outcome measures. This is also an uncontrolled study. In spite of its limits, we hope that this study will contribute to a better knowledge of the use of ALM as a therapeutic strategy for sexual offenders.

Conflict of Interest: none

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