The use of medroxyprogesterone acetate for the treatment of sexually inappropriate behaviour in patients with dementia

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Sexually inappropriate behaviour in a patient with dementia can be a problem for caregivers. Little research has been done concerning treatment for this behavioural disorder. The hormone medroxyprogesterone acetate (MPA) is a known, but infrequently used, treatment option. We describe a series of 5 cases in which MPA was used successfully to control inappropriate sexual behaviours in men with dementia.

Un comportement sexuel inapproprié chez un patient atteint de démence peut poser un problème pour les soignants. Il s'est fait peu de recherches sur le traitement de ce trouble du comportement. L'acétate de médroxyprogestérone (MPA) constitue un traitement hormonal possible connu mais peu utilisé. Nous décrivons une série de cinq cas où l'on a utilisé le MPA avec succès pour contrôler un comportement sexuel inapproprié chez des hommes atteints de démence.

Introduction

Behavioural problems are common in dementia and present a burden to caregivers. Agitation is estimated to occur in 50%–60% of patients with dementia.[1] Although much less common, sexual aggression or disinhibition can be very disruptive to family members and to care in hospitals, nursing homes or other facilities. The estimated prevalence of sexually inappropriate behaviours in patients with dementia is between 2.9% and 15%.[2] In the nursing home setting, these behaviours can be a threat to the welfare of other patients. Repeated offences can lead to difficulty finding or maintaining appropriate living placement.

Studies have shown that whereas sexual activity decreases in elderly people, sexual interest does not.[3] The decrease in activity may be attributed to factors including medical illness, nursing home placement and loss of opportunity.[3] The diagnosis of dementia raises ethical considerations related to sexuality, including ability to give consent, advances toward unwilling participants and displays of sexual behaviours in locations or situations not deemed appropriate by society. The difficulty in managing these individuals arises from the desire to protect others, while not using undue restraint or causing significant side effects for the individual.

The literature regarding treatment is limited. A review of treatments for inappropriate sexual behaviours based on case reports including the use of antipsychotic drugs, antiandrogens, estrogens, gonadotropin-releasing hormone (Gn-RH) analogues and serotonergic agents revealed no studies comparing the efficacy of one treatment over another. However, there were more case reports regarding successful treatment of patients with dementia using antiandrogens (medroxyprogesterone acetate [MPA]) (6 cases) than serotonergic agents (1 case), clomipramine (2 cases), Gn-RH analogues (1 case) or estrogens (1 case).[4] In addition, the side effects of these agents may limit their applicability in elderly patients, such as anticholinergic effects from clomipramine or cardiovascular and thromboembolic risk factors and gynecomastia due to estrogens.[4] More recently, the histamine blocker cimetidine has also been identified as a possible treatment option.[5]

MPA is a synthetic progestin used for numerous purposes in women. When administered in males, it lowers testosterone levels, lowering sexual drive without causing feminization. MPA has been used in younger patients, including pedophiles and individuals with other mental

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Medical subject headings: dementia; disinhibition; medroxyprogesterone acetate; sexual disorder.

J Psychiatry Neurosci 2006;31(2):132-4.

Submitted Dec. 30, 2004; Revised July 13, 2005; Accepted Aug. 16, 2005

illnesses and sexually inappropriate behaviours.[6–8] Case reports suggest that MPA is a safe and efficacious treatment for symptoms specific to inappropriate sexual behaviour in men with dementia.[9,10] Dosages in reported cases ranged from 100 mg taken orally daily[10] to 1000 mg administered intramuscularly (IM) weekly[9] based on efficacy and tolerability. The most common side effects in males are fatigue and weight gain. Impotence, hot or cold flashes, headache, mild depression, mild diabetes, loss of body hair, insomnia, nausea, phlebitis and loss of ejaculatory volume have been noted to be potential side effects.[4,11] However, previous case reports to date have not revealed significant side effects in patients with dementia and have concluded that MPA is well tolerated and safe.[9,10] In this report, 5 cases of treatment of inappropriate sexual behaviour in men with dementia using MPA are described to add to the literature in this area. The University of Virginia Human Investigations Committee approved this study.

Case 1

Mr. A was a 79-year-old man living in a nursing home when he began to exhibit sexually inappropriate behaviours including grabbing the breasts of female staff and residents and attempting intercourse with a male resident. His condition was diagnosed as dementia of mixed type (vascular and Alzheimer's) with behavioural disturbance. He had no history of sexually inappropriate behaviour. The patient's cognitive function was assessed using the Mini-Mental Status Examination (MMSE); his score was 11/30. He was already being treated with donepezil, 10 mg, each evening. Trials of buspirone and haloperidol did not improve these behaviours. MPA, 100 mg IM monthly, was prescribed, and the patient responded within 2 weeks with no further sexually inappropriate behaviours. No change in MMSE score was noted. After 4 months, the medication was stopped because of concerns expressed by a state regulator regarding "the use of chemical restraint." Sexually inappropriate behavioural problems began almost immediately. Various medications, including trials of haloperidol, olanzapine, quetiapine, carbamazepine and buspirone, failed to improve the behaviours but did cause a variety of side effects. The patient was finally prescribed MPA again at the same dose of 100 mg monthly, which did not immediately control the behaviours, so the patient was admitted to a psychiatric facility, transferred to a state hospital and lost to follow-up.

Case 2

Mr. B was an 85-year-old man, living in a nursing home, who almost immediately from admission began exposing himself to his adult daughter and was inappropriately touching female residents and attempting oral sexual relations. The patient's diagnosis was vascular dementia with behavioural disturbance and depression. His MMSE score was 24/30. His history was significant for sexual assault charges toward a female child many years earlier, though he was later found innocent. He had also had multiple affairs with women during his marriage. There was no history of earlier exposing or other inappropriate sexual behaviour with the daughter. There were no other earlier legal charges. The patient was prescribed sertraline for depression and MPA, 300 mg IM monthly. The sexually inappropriate behaviours stopped within 2 weeks; however, the depression remained. Sertraline was stopped, and the patient was prescribed venlafaxine instead, but he continued to have some depression. There was no change in MMSE score. About 1 year later, the MPA was discontinued because of state regulators' concern regarding "chemical restraint." Sexually inappropriate behavioural problems recurred within several weeks. Because the nursing home refused to allow the use of MPA secondary to state interpretations regarding chemical restraint, thioridazine was used instead. The behaviours were observed to decrease but not cease. The patient was transferred to another nursing home shortly thereafter and lost to follow-up.

Case 3

Mr. C was an 81-year-old man who repeatedly touched the breasts of his adult daughter, female staff and other female residents in the nursing home. He had no history of sexually inappropriate behaviours, and this was considered a marked behavioural change by his family. His condition was diagnosed as senile dementia of the Alzheimer's type with depression and behavioural disturbance. His MMSE score was 14/30. Trials of sertraline for depression and quetiapine for aggression did not decrease the sexual behaviours. The patient was prescribed MPA, 100 mg every 2 weeks. The dose was slowly titrated to 500 mg weekly, and the sexual behaviours completely stopped. The patient continued to have depressive symptoms, and he was prescribed escitalopram with good results. There was no change in MMSE score following treatment with MPA. The patient remained free of further inappropriate behaviours and had no apparent side effects for over a year, when he suffered a stroke. At that point, MPA was stopped, because the patient was no longer able to physically exhibit such behaviours.

Case 4

Mr. D was a 68-year-old man admitted to the geriatric unit at the University of Virginia, Charlottesville, for inappropriate sexual behaviours including masturbating in public places, grabbing the breasts of female staff members and climbing into female residents' beds. The diagnosis was vascular dementia with behavioural disturbance. His MMSE score was 0/30. Trials of quetiapine, trazodone, valproic acid and risperidone did not improve the sexual behaviours but did cause side effects such as sedation and gait instability. After starting MPA, 300 mg IM weekly, his sexual behaviours ceased almost immediately and all other psychotropic medications were discontinued. No change in MMSE score was noted.

Case 5

Mr. E was an 81-year-old man who showed combativeness toward caregivers and inappropriate sexual behaviour including touching female staff and residents' breasts and engaging in sexual intercourse with a female resident. His MMSE score was 3/30. He was taking donepezil, 10 mg each evening. Quetiapine was successful in controlling combativeness but had no effect on the sexual behaviours. MPA, 300 mg IM weekly, was begun and led to a decrease in the behaviour. An increase to 500 mg weekly eliminated the sexually inappropriate behaviours entirely. The quetiapine was then discontinued without reoccurrence of combative behaviours. The patient gained 4.5 kg (10 lb) over the course of a year's treatment, but no other side effects were noted. The MPA was discontinued after a year, because the patient's physical status had changed in that he was no longer able to demonstrate the sexually inappropriate behaviours. After MPA was discontinued, the combative behaviours returned and quetiapine was started again to treat those behaviours.

Discussion

Our cases demonstrate the use of MPA in the treatment of inappropriate sexual behaviour in men with dementia. All the individuals' behaviour improved with MPA treatment, after treatments with other psychiatric medications with less favourable side-effect profiles had failed. Of note, the dosage was quite variable, ranging from 100 mg each month to 500 mg each week.

The MPA appeared to be well tolerated, with the only physical side effect noted in our cases being weight gain in 1 patient. On the other hand, the use of less specific medications for the sexual behaviours resulted in more side effects. In addition, although noted to be depressed before treatment with MPA, 2 of the patients continued to experience symptoms of depression during treatment with MPA. Depression is a reported side effect of MPA therapy and could have contributed to continued symptoms in our cases. Monitoring for signs and symptoms of depression should continue throughout the time a patient is receiving MPA therapy. If patients are monitored and treated appropriately, however, depression should not be considered a contraindication for initiating or a reason for discontinuing MPA.

It is also noteworthy that in 2 cases the MPA was discontinued because of state regulatory concern regarding chemical restraint. This ethical question has been noted in the literature concerning the use of MPA and similar agents, and it is recommended that clinicians obtain fully informed written consent from the legally authorized caregiver of the individual with dementia before using MPA.[9,10] However, in our opinion, MPA is less of a chemical restraint than other drugs used to control inappropriate sexual behaviours, because it is symptom specific with an antilibidinal effect, whereas other drugs such as antipsychotics are less specific and have more potential for side effects in elderly patients, such as sedation and gait instability.

These cases add to the literature on the safety and efficacy of MPA in the treatment of inappropriate sexual behaviour in male patients with dementia. Because its mechanism of action is specific to the symptom of sexual behaviour, MPA may be considered first-line therapy for this behavioural disorder.

Acknowledgements: This study was sponsored in part by the National Institute of Neurological Disorders and Stroke (grant no. NS045008-01 A1) (S.H.).

Competing interests: None declared.

Contributors: Both authors contributed to the conception and design of the article, acquired and interpreted data, drafted and revised the article and gave approval for the article to be published.

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