Use of psychoactive drugs in a health and welfare centre

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Resumen

Objetivo: Analizar la utilización de psicofármacos en un centro sociosanitario y compararlo con las guías de recomendación existentes.

Material y métodos: Se realizó un estudio transversal del perfil farmacoterapéutico de los residentes ingresados en un centro sociosanitario. Las fuentes de información fueron las prescripciones médicas y las historias clínicas del centro. Se evaluaron variables demográficas, del tratamiento con psicofármacos, fecha de inicio, dosis y combinaciones, indicación y número total de medicamentos estudiados. Se compararon los resultados con la bibliografía y las guías de prescripción existentes.

Resultados: Tomaban psicofármacos 45 de los 70 pacientes estudiados observándose que el 51,1% estaban siendo tratados con fármacos neurolépticos, el 42,2% con antidepresivos, el 6,7% con ansiolíticos. El 62% eran mujeres. La edad media global fue de 80,3 años. El número medio de psicofármacos por paciente fue 1,6 y del total de medicamentos 10,5.

Los psicofármacos más utilizados fueron risperidona, lorazepam y citalopram. La asociación más frecuente fue neuroléptico más benzodiazepina. La indicación y dosis prescritas eran adecuadas según ficha técnica, aunque se observaron pautas de prescripción desaconsejadas.

Conclusiones: Los resultados del estudio aconsejarían controlar la duración de los tratamientos con benzodiazepinas, asegurar el diagnóstico de los estados depresivos y realizar un adecuado seguimiento de las asociaciones entre psicofármacos.


Summary

Objective: To analyse the use of psychoactive drugs in a health and welfare centre and compare this use with current guidelines.

Method: A cross-sectional study of the drug treatment regime of hospitalised patients in a health and welfare centre was carried out. Information was obtained from prescriptions and the clinical histories of patients in the centre. The following variables were assessed: demographic data, treatment with psychoactive drugs, date of commencing treatment, dosage, drug combinations, indication and total number of drugs analysed.

The results were compared with the literature and current prescription guidelines.

Results: 45 of the 70 patients analysed were taking psychoactive drugs: 51.1% were being treated with neuroleptic drugs, 42.2% with antidepressants, and 6.7% with anxiolytic agents. 62% were women. The average mean age was 80.3 years old. The average number of psychoactive drugs administered to each patient was 1.6 and the average number of total drugs prescribed was 10.5.

The most frequently administered psychoactive drugs were risperidone, lorazepam and citalopram. The most frequent association was neuroleptic drugs with benzodiazepine. The indication and dosage prescribed were appropriate according to the data sheet, although some inappropriate prescription practices were observed.

Conclusions: The results of the study would recommend controlling the duration of treatment with benzodiazepine, confirming the diagnosis of states of depression and correctly monitoring the associations between psychoactive drugs.

Key words: Psychoactive drugs. Prescription. Monitoring. Drug use. Health and welfare centre.
INTRODUCTION

Between 12-15% of geriatric patients suffer from depression. This percentage increases in institutionalised elderly patients. In geriatric patients, physical illnesses are the most frequent cause of depressive disorders and are linked to 20-40% of cases of oncological illnesses, cardiovascular diseases (18%), neurological disorders, rheumatoid arthritis (15-17%) and diabetes (8.5-27%). The choice of an antidepressant drug is particularly problematic in elderly patients due to their susceptibility to adverse effects and drug interactions, mainly caused by their need for multiple drug treatments.

Benzodiazepine is frequently prescribed to elderly patients, mainly for the treatment of insomnia and anxiety, disorders which these patients commonly experience. In this group of patients, there was a prolonged plasma half-life of these drugs which has been linked to an increase in the risk of falls and hip fractures.

Antipsychotic drugs are effective in resolving cognitive problems in elderly patients, in particular those linked to dementia. It is necessary to provide individualised dosages to fragile and/or elderly patients of over 80 years old. In recent years, numerous articles have been published which question the suitability of antipsychotic drugs in elderly patients, recording more than 50% of inappropriate use.

The Omnibus Budget Reconciliation Act (OBRA) regulates the quality of psychopharmacological prescription in centres caring for chronic geriatric patients in the USA and since its implementation in 1987, the use of antipsychotic drugs has decreased by 50%.

In Catalonia, there are various prescription guidelines in geriatrics such as the “Guia Farmacoterapèutica Marc per a Centres Geriàtrics residencials socials” published by CatSalut in 2000 or the “Guía terapéutica en Atención Primaria basada en la Evidencia” published in 2004. Although these guidelines do not focus specifically on psychoactive drugs as the OBRA programme, they do offer a series of guidelines for the prescription of these types of drugs.

The objective of this study is to analyse the use of psychoactive drugs in a health and welfare centre and to compare this use with the literature and current guidelines.

METHOD

A cross-sectional study was carried out using two prevalence points during the months of June and December 2005. We reviewed the drug treatment regime of hospitalised patients in a health and welfare centre which cares for 88 patients from various programmes including the Assisted Residence Geriatric Programme (Vellesa Programme of the Catalanian Institute of Health and Welfare (ICASS), Regional Ministry of Welfare and Family Affairs) and the Health and Welfare Centre Long-Stay Programme, Vida als Any (PVAA), of the Catalonian Health Service (SCS).

The neuroleptics, antidepressants and drugs with treatment durations of over six weeks were identified from the prescriptions recorded in patient’s clinical histories.

The following variables were analysed: age and sex, daily dosage, indication, diagnosis or reason for prescribing the drug, date of initiating treatment, total number of drugs analysed and number of drugs per patient.

The results were compared with the literature reviewed and current prescription guidelines. These were also compared with the authorised indications included in the data sheets of the drugs reviewed.

RESULTS

The drug treatment regimes of 70 patients were analysed. 70% of these patients were women, and the overall mean age was 80.5 years old (42-99). 45 of the 70 patients in the study were taking psychoactive drugs (mean age 80.3 years old, 42-99); 62% of these patients were women. Of these patients, 51.1% (CI95% 37.6-65.8) were being treated with neuroleptic drugs, 42.2% (CI95% 26.8-60.9) were being treated with antidepressants and 6.7% (CI95% 4.3-9.5) with anxiolytic agents.

Each patient was receiving an average number of 1.6 (0-3) psychoactive drugs and an overall average number of 10.5 (0-16) prescribed drugs. Table I shows the distribution of the neuroleptic drugs in patients included in the study.

Risperidone was the most frequently administered neuroleptic drug (64.5%) (p < 0.001) of all of the neuroleptic drugs analysed, and was generally taken in solution form. The most common dosage was 23 drops per day, and the highest dosage was 65 drops per day recorded for one patient. Olanzapine was the second most frequently administered neuroleptic drug, although in a smaller percentage (19.4%). The dosages ranged between 2.5 and 5 mg per day. For both risperidone and olanzapine, the dosage was appropriate in this patient group. Neuroleptic drugs were indicated for the treatment of dementia-related psychosis and agitation.

From the benzodiazepine group, lorazepam was the most frequently administered anxiolytic agent (42.8%) (p = 0.004) with a daily dosage of 1 mg. Alprazolam was the second most frequently administered drug (25%) with dosages of between 0.25 to 1 mg per day, although the frequency of prescription was almost half that of lorazepam.

The dosages are within the limits recommended for this age group. These drugs were indicated for the treatment of insomnia and anxiety. Treatment durations exceeded six months.

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The most frequently administered antidepressant was citalopram (36.8%) with dosages of 20 mg per day, followed by fluoxetine (31.6%) with the same dosage. The frequency of prescription was similar. There were no significant differences (p = 0.06) between the use of the different antidepressants, with the dosage being appropriate.

The drugs were indicated for the treatment of depression and states of depression. In general, the most frequently prescribed psychoactive drugs were neuroleptics, followed by antidepressants.

Table II outlines the combinations of psychoactive drugs. Sixteen patients received a combination of two of the drugs analysed and four patients received a combination of three of the drugs analysed. The most frequent associations were neuroleptic drugs with benzodiazepine, and benzodiazepine with antidepressants, with a lower percentage.

DISCUSSION

The patient population analysed in this study was made up of elderly patients, with chronic pathologies, receiving multiple drug treatments; these patients had physical dependence and cognitive disorder similar to that recorded in other studies. In our study, the most frequently prescribed psychoactive drugs were neuroleptics (risperidone and olanzapine) and the dosages administered were low, and this would be in keeping with the published guidelines.

Risperidone is effective in controlling psychiatric symptoms (behavioural disturbances) secondary to the affectation of higher functions which cause dementia. This is the neuroleptic drug of first choice in the centre due to its ease of dosage, the low level of drowsiness linked to its use and the low incidence of extra-pyramidal symptoms and alterations in arterial tension. Olanzapine is a treatment alternative for patients in whom other neuroleptic drugs have not managed to control behavioural symptoms.

There are currently studies which show that the use of antipsychotic drugs in patients with dementia is not linked to an increase in the risk of stroke and that conventional neuroleptic drugs are linked to a greater risk (double) of serious cardiovascular adverse effects (ventricular arrhythmia and cardiac arrest). According to the OBRA programme, the use of delayed forms is especially not advised in elderly patients with dementia.

The fact that neuroleptic drugs are prescribed in excess amounts in geriatric homes may be due to patients’ treatment not being interrupted or reassessed. Almost half of the patients in this study were treated with neuroleptic drugs, which is double the figure reported in other published studies. It may be interesting to implement guidelines similar to those by OBRA which carry out continuous monitoring with quantitative quality indicators of the psychoactive drugs used, their effectiveness and their side effects in order to regulate their use.

The benzodiazepines were the second group of most frequently prescribed psychoactive drugs. The use of these drugs with a short half-life and the dosage of lorazepam and alprazolam are in accordance with the recommendations given in the literature. Their main indication in elderly patients is similar to that for anxiolytic agents. The use of benzodiazepines with a short half-life is more advisable than those with a long half-life in geriatric patients since the latter have been linked to a greater frequency of falls in elderly patients, a higher level of daily sedation, incontinence and worsening of cognitive behaviour.

Prolonged administration for over four-six months is not recommended and treatment should be discontinued slowly, although it would still be more advisable not to use these drugs during periods of over one month.
Treatments durations in the centre were over six months for all cases; we believe that this discrepancy may be due to the fact that in clinical practice, it is difficult to define the period of use of a drug if the patient is in a stable state. These results correspond to the data published in other studies analysed although it is important to bear in mind that during the selection of patients, those with a treatment duration of under six weeks were excluded (i.e. those who fulfilled the guidelines consulted).

Bearing in mind the literature reviewed and the guidelines consulted, we observed some discrepancies such as the use of diazepam and clonazepam which is not recommended and which furthermore is considered serious according to Gray. However, the guidelines published in Catalunya consider these as commonly used drugs in elderly patients. As with other authors, McLeod recommends the use of short-acting benzodiazepines, although advises against their use in general.

The antidepressants of choice in elderly patients are selective serotonin reuptake inhibitors, which have a similar effectiveness to tricyclic antidepressants with a lower level of side effects. All of the antidepressants analysed in this study correspond to this group.

The use of antidepressants in this study is surprisingly low bearing in mind the high association of depression with chronic pathologies and the level of prevalence of depression in institutionalised elderly patients. We believe that symptoms of depression may be under-assessed due to the high prevalence of dementias in these types of patients.

With respect to the combinations of psychoactive drugs, the most frequent was neuroleptic with benzodiazepine in the treatment of dementia with significant levels of anxiety, and for the control of anxiety in patients with chronic psychiatric pathologies treated with neuroleptics.

Brañas states that a single neuroleptic drug with double action should be administered instead of combinations of psychoactive drugs, although Spanish guidelines do not make any such recommendation. The combinations of neuroleptic drugs with antidepressants used in the centre would not be recommended according to the study carried out by Beers although again the Spanish guidelines do not advise against this combination.

With respect to the triple combination of neuroleptics with benzodiazepines and antidepressants, the treatment should be revised in accordance with Beers recommendations, in particular for the combination of neuroleptics with antidepressants. The combination of benzodiazepine with antidepressants was observed in a lower percentage and there was no recommendation against this.

References