

HALDOL DECANOATE: ASPECTS OF THE USE OF THE DRUG IN INDIVIDUALS FROM A CITY IN THE INTERIOR OF CEARÁ, BRAZIL

HALDOL DECANOATO: ASPECTOS DO USO DO FÁRMACO EM INDIVÍDUOS DE UM MUNICÍPIO DO INTERIOR DO CEARÁ, BRASIL

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ABSTRACT

Introduction: Haldol Decanoate is a first-generation antipsychotic effective against the positive symptoms of psychosis, namely delusions and hallucinations. In addition, the medication also exerts a sedative action in conditions of psychomotor agitation. **Objective:** To identify sociodemographic aspects, diagnosis and administration of Haldol Decanoate in patients of a Psychosocial Care Center. **Method:** This is a documental study, with quantitative design, collected from medical records of users of a Psychosocial Care Center in Northeast Brazil. Data collection was carried out from June to August 2022. 75 medical records were identified, of these, 51 met the criteria of this study and compose the research sample. **Results:** The medical records of patients using Haldol Decanoate in the referred institution presented with higher prevalence: age between 31 and 40 years, male gender, single marital status, base diagnosis Schizophrenia and with dose interval of Haldol Decanoate of 15 days, making use of 1 ampoule. **Conclusion:** The identification of the users' profile and the characteristics inherent to the outpatient use of Haldol Decanoate are important for the improvement, implementation and prioritization of strategic actions for health professionals, managers and public policy makers, influencing an efficient mental health care.

Keywords: Mental Health Assistance; Population characteristics; Schizophrenia; Nursing.

RESUMO

Introdução: Haldol Decanoato é um antipsicótico de primeira geração eficaz contra os sintomas positivos da psicose, nomeadamente delírios e alucinações. Além disso, a medicação também exerce uma ação sedativa em condições de agitação psicomotora. **Objetivo:** Identificar aspectos sociodemográficos, diagnóstico e administração do Haldol Decanoato em pacientes de um Centro de Atenção Psicossocial. **Método:** O estudo é do tipo documental, com delineamento quantitativo, com coleta em prontuários de usuários de um Centro de Atenção Psicossocial, no Nordeste do Brasil. A coleta de dados foi realizada nos meses de junho a agosto de 2022. Foram identificados 75 prontuários, destes, 51 atenderam aos critérios deste estudo e compõem a amostra da pesquisa. **Resultados:** Os prontuários de pacientes em uso de Haldol Decanoato na instituição referida apresentaram com maior prevalência: idade entre 31 e 40 anos, sexo masculino, estado civil solteiro, diagnóstico base Esquizofrenia e com intervalo de dose do Haldol Decanoato de 15 dias, fazendo uso de 1 ampola. **Conclusão:** A identificação do perfil dos usuários e das características inerentes ao uso ambulatorial do Haldol Decanoato são importantes para o aprimoramento, implementação e priorização de ações estratégicas para profissionais de saúde, gestores e formuladores de políticas públicas, influenciando em uma eficiente assistência em saúde mental.

Palavras-chave: Assistência à Saúde Mental; Características da população; Esquizofrenia; Enfermagem.

INTRODUCTION

Schizophrenia is a chronic mental disorder of multifactorial origin with increased presynaptic dopamine synthesis. Generally, the symptoms begin after the age of 15, and these are characterized by psychoses with the presence of thought disturbances, hallucinations, social isolation, and others. This important public health problem affects approximately 1% of the adult population, regardless of sex and sociocultural conditions, often implying an instability in economic and social factors (LIMA, et al., 2017; STĘPNICKI, et al., 2018).

Antipsychotic drugs are the main agents used in schizophrenia treatment. Thus, Haldol Decanoate is a first generation antipsychotic effective against the positive symptoms of psychosis, notably delusions and hallucinations. Haldol Decanoate also exerts a sedative action in conditions of psychomotor agitation, assisting in the relief of thought and behavior disorders and also in treatment of uncontrolled movements (PERESTRELO et al., 2019).

The long-acting injectable formulation of butyrophenone haloperidol appears as decanoate ester in a sesame oil vehicle and is administered by intramuscular gluteal or deltoid injection. Due to the slow titration of the dose and the prolonged time to reach equilibrium state, initial supplementation of oral antipsychotics may be required. In this regard, it is noted that peak serum concentrations are apparent between 3 and 9 days, with an elimination half-life around 3 weeks (CORREL, et al., 2021).

The mechanism of action of this medication as an antipsychotic is still unclear. However, efficacy is mediated by its activity as a central dopamine D2 receptor antagonist in which there is a possibility of binding to alpha-1 with less affinity (Rybicki et al., 2022). The drug administration is intramuscular, it generates a slow release and indication for dosage varies according to the clinical picture, which can be: fortnightly, monthly or bimonthly (CÂMARA et al., 2020).

However, despite the advantages, treatment of schizophrenia with long-acting antipsychotics requires care. Several procedures are necessary to support the patient and family, such as the control of consultations' dates and intramuscular applications, in addition to controlling side effects and drug interactions, it enables an appropriate treatment involving strategies to the patient's disease conditions (BRASIL, 2013).

The adverse effects of the continued use of decanoate haloperidol are firstly quantitatively:

extrapyramidal side effects (ECE), restlessness, weight gain, hypersalivation, lack of sleep, among others, of which individuals using the drug have discontinued treatment, mainly due to ECE with the presence of acute dystonia and akathisia (MACE, et al., 2018).

The evident contraindications of the drug are documented hypersensitivity to this drug, individuals with Parkinson's disease, dementia with Lewy body, comatose patients or in situations of severe Central Nervous System (CNS) depression. In addition, concomitant use with CNS depressants such as barbiturates, benzodiazepines, and opioids should be avoided. It is worth noting that controlled clinical trials have revealed an increased risk of mortality with use of the decanoate haldol in the elderly with psychosis added to dementia (CÂMARA et al., 2020).

In Brazil, psychosocial care centers (CAPs in Brazilian Portuguese) are specialized public and free care services composed of multidisciplinary teams that provide assistance in administration of continuous treatment medications such as Haldol Decanoate (SILVA et al., 2020).

In this perspective, the drug treatment with Haldol Decanoate is one of multiple interventions adopted in the treatment of patients with schizophrenia. The health care professionals should be aware of the irregular use, abandonment and proportion of side effects in the patient, factors that impact the treatment, with the potential to increase the frequency and intensity of crises (BECHELLI, 2003).

Moreover, the monitoring of people with mental suffering and the active search are important working tools for the health team. Another essential factor for the management of the patient using Haldol that must be considered by health professionals is related to the doses of medication, because generally, the first applications of Haldol are made in low doses, with gradual adjustment, for the best adaptation and definition of the dosage regarding the effectiveness and tolerability of the patient (WEIZENMANN, 2015).

Although there are gaps in literature regarding the use and monitoring of medications such as injectable Haldol Decanoate by patients of CAPs, discussions about the use of psychotropic drugs such as haldol are essential and should be part of the health team routine since they are responsible for prescription, administration and continuous follow-up of users.

Another important factor little evidenced in literature is guidance for the patient and the family regarding performance of administration procedure,

monitoring of consultations' dates, dose intervals, information on drug interactions and side effects are tasks performed by the nursing team, which contribute to ensure efficient and safe therapy.

In addition, it is necessary to identify the diagnoses associated with the use of this drug and the profile of these CAPs' patients. Therefore, the objective of this research is to identify socio-demographic aspects, diagnosis and administration of Haldol Decanoate in patients of a psychosocial care center in northeastern Brazil.

METHODS

Documentary study with a quantitative design (PEREIRA et al., 2018) whose primary data sources were medical records of users of psychosocial care center, in Northeastern Brazil.

Data collection was performed from June to August 2022, and for the selection of the participants' health records, the following inclusion criteria were adopted: complete medical records of patients aged 20 years and older and using intramuscular Haldol Decanoate with outpatient control. Exclusion criteria were medical records with incomplete information and patients transferred to other treatment units. These medical records are divided into folders, with all patient information attached in writing and manual form. Electronic medical records are not yet used in CAPs III in Northeastern Brazil.

During the study, 75 medical records were identified, of which 51 met the criteria of this study. Thus, at the end, a final sample of 51 health records used for data collection and analysis was obtained.

Regarding data collection, an instrument adapted from the service form was used, which extracted information: age, gender, marital status, base diagnosis and dose range they received from Haldol Decanoate. Data analysis and tabulation were performed using Microsoft Excel (Office 2019) separated into tables, numbers and percentages.

Research complied with ethical standards in accordance with the National Council of Health and was submitted to the Brazil Platform for consideration by the Research Ethics Committee (CEP in Brazilian Portuguese) of the Regional University of Cariri and approved according to the opinion of n° 2.328.781.

RESULTS

Medical records of 51 CAPs III users who had a prescription for Haldol Decanoate were analyzed. Their ages ranged from 20-30 years 12 (23.5%), with higher prevalence 31-40 17 (33.3%), 41-50 14 (27.6%) and more than 51 years 8 (15.6%) of the patients, 29 (56.9%) of the medical records corresponded to male patients and 22 (43.1%) to female patients. Of these, 38 (74.6%) had a single marital status, 6 (11.8%) were married, 3 (5.8%) were divorced and 4 (7.8%) were widowed, or did not present data.

Users' psychiatric diagnoses 19 (37.2%) were diagnosed with Schizophrenia, 15 (29.5%) were diagnosed with Disorganized (Hebephrenic) Schizophrenia; 7 (13.7%) undifferentiated schizophrenia; 4 (7.8%) with residual schizophrenia; 3 (5.9%) with unspecified non-organic psychosis; and 3 (5.9%) paranoid schizophrenia. This information is illustrated in table 1.

Table 1. Sociodemographic and diagnostic characteristics of Haldol Decanoate users in CAPs III in Northeastern Brazil, 2022.

Variable	Category	Quantity/ Percentage
Age	20 – 30	12 (23.5%)
	31 – 40	17 (33.3%)
	41 – 50	14 (27.6%)
	51 or more	08 (15.6%)
Gender	Male	29 (56.9%)
	Female	22 (53.1%)
Marital status	Single	38 (74.6%)
	Married	06 (11.8%)
	Divorced	03 (5.8%)
	Other	04 (7.8%)
Base diagnosis	Schizophrenia	19 (37.2%)
	Disorganized (Hebephrenic) Schizophrenia	15 (29.5%)
	Undifferentiated schizophrenia	07 (13.7%)
	Residual schizophrenia	04 (7.8%)
	Unspecified non-organic psychosis	03 (5.9%)
	Paranoid schizophrenia	03 (5.9%)

Source: authors.

Haldol Decanoate dose range analysis by numbers of ampoules/ numbers of patients from CAPs III showed in the dose interval of 10 days the use of 1 ampoule by 2 (3.9%) patients. With a dose interval of 15 days use of 1 ampoule by 14 (27.4%) patients, using 2 ampoules in this same interval were 2 (3.9%) patients and 1 (1.9%) patient used three ampoules. A 20 days dose interval using 1 ampoule was observed in 2 (3.9%) patients.

In addition, a dose interval of 21 days using 1

ampoule occurred in 9 (17.6%) patients, using 2 ampoules in the same interval were 3 (5.9%) patients, 2 (3.9%) patients were using three ampoules and 1 (1.9%) patient used four ampoules. In a monthly dose interval, that is, 30 days in use of 1 ampoule were 10 (19.6%) patients, using 2 ampoules in this same interval were 4 (7.8%) patients. With a dose interval of 35 days using 1 ampoule was 1 (1.96%) patient. This information is shown in table 2.

Table 2. Characteristics of haldol use by Haldol Decanoate users in CAPs III, in Northeastern Brazil, 2022.

Dose interval	Number of ampoules/number of patients			
	One ampoule	Two ampoules	Three ampoules	Four ampoules
10 days	02 patients			
15 days	14 patients	02 patients	01 patient	
20 days	02 patients			
21 days	09 patients	03 patients	02 patients	01 patient
30 days	10 patients	04 patients		
35 days	01 patient			

Source: authors.

DISCUSSION

Analyzing the data presented in medical records were observed that patients have ambulatorial use of the injectable Haldol Decanoate, and their ages with higher prevalence are from 31 to 40 years, most corresponded to male individuals, single marital status, higher diagnostic prevalence is Schizophrenia, and the dose interval of the drug is 15 days to 1 ampoule.

Based on this, studies through documentary research with methodology similar to this research that aimed to identify drugs subject to special control most used in Psychosocial Care Centers showed the most used medication during the period studied was Haloperidol Decanoate 50 mg/ml injectable, with therapeutic indication for treatment of crises related to use of alcohol and drugs and for control of schizophrenia and other psychotic disorders, being more used in the second case (BOGER *et al.*, 2018; LIMA *et al.*, 2017; SILVA *et al.*, 2020).

In agreement, (OLIVEIRA *et al.*, 2012) also pointed to Haloperidol (oral administration) as the most prescribed drug, followed by intramuscular Haloperidol Decanoate, through a research conducted in a CAPS. It is also worth mentioning that, because it presents prolonged action, Haloperidol Decanoate improves the treatment of patients with schizophrenia, because it maintains plasma levels and avoids re-hospitalizations (GUILLON *et al.*, 2019).

Parenteral drug administration is associated with increased treatment in patients on the schizophrenic spectrum. This route of administration has the advantage of facilitating treatment in patients who forget to use oral medication. In addition, some sociodemographic variables were also related to the non-adherence of schizophrenic spectrum patients, such as young age, single marital status and belonging to ethnic minorities. Other factors were also associated with lack of treatment in this population, such as occurrence of violent behavior and street situation (BARBOSA *et al.*, 2020).

Adverse effects of Haldol Decanoate include QT prolongation, Torsade de Pointes, neuroleptic malignant syndrome, extrapyramidal symptoms, and seizures (PERESTRELO *et al.*, 2019). The extrapyramidal effects, characterized by acute dystonias that are involuntary movements, such as torticollis, muscle spasms, tremors, stiff muscles and protrude tongue, in addition to parkinsonian syndromes, is a characteristic condition of the beginning of treatment and tends to regress over time, being reversible with interruption of medication (BOGER *et al.*, 2018).

Other effects such as delayed dyskinesia may manifest after months or years of treatment. It is more common among patients over 50 years old, which is characterized by involuntary movements, in this case of the face, tongue, trunk and limbs, are also adverse effects associated with Haldol Decanoate, but this condition can

be severely disabling and is not reversible with interruption of treatment, and may even worsen (BOGER *et al.*, 2018).

In this context, it is believed intense use of Haloperidol and its associations are due to its lower cost, about three times lower than the use of a more modern antipsychotic that has fewer undesirable effects (NUNES *et al.*, 2018). In addition, studies have revealed 5% increase in the use of long-acting antipsychotics in Brazil by patients who have not adhered to oral antipsychotics would save approximately R\$ 0.3 million every year (GUILLON *et al.*, 2019).

According to the results of this study, (LIMA *et al.*, 2017) in order to describe the clinical profile of patients with schizophrenia who used long-acting antipsychotics demonstrated a prevalence of males, 57.1%, in the age group between 31 and 40 years, low schooling and single status. Silva *et al.* (2020) in a similar study present a coincident profile, adults in the mean age group of 30 to 40 years, single and low schooling.

In this context, the prevalence of single individuals in the studies leads the authors to a new hypothesis, as to a possible difficulty of this public in developing stable relationships being directly or indirectly related to the pathology, but more studies are needed to confirm the hypothesis.

Guillon *et al.* (2019) emphasizes in his study that the stigmatization related to the pathology brings consequences, such as loss of self-esteem, feelings of hopelessness, distancing from social relationships, reducing the possibilities of resocialization, since, in society's view, these individuals run away from social norms.

CAPs III welcomes severe conditions' users and has an important role in the context of psychiatric emergencies, as an establishment that provides access to SUS for 24 hours a day. Assistance in administration of medications implies identification of better events of treatment adhering, dosing control, continuous follow-up to control adverse and collateral reactions, therapy review considering adverse events and drug-related health education (BRASIL, 2015). In addition, prolonged use is often associated with treatment abandonment by users and

outpatient control can attenuate abandonment (SILVA *et al.*, 2020).

Being a documentary study is a limitation for the study, because it has a secondary data source, extensive amount of medical records with incomplete information, exemplified by the absence of broader socio-demographic data and detailed nursing evolutions, factors that could further enrich this research.

However, it is worth noting the study is unprecedented in the region, and has a sufficient sample to describe socio-demographic and clinical profile of clients with mental disorders in the study scenario representing an important approach for discussions and implementation of clinical monitoring services regarding the use of Haldol Decanoate in CAPs.

CONCLUSION

Through this investigation, sociodemographic and clinical profile related to the use of Haldol Decanoate of clients assisted by CAPS III in Northeastern Brazil, was characterized. Identification of users' profile and characteristics inherent to ambulatorial use of Haldol Decanoate are important information for improvement, implementation and prioritization of strategic actions for health professionals, managers and public policy formulators.

Chronic use of psychotropic drugs such as Haldol Decanoate may require attention from professionals for constant review of therapy and especially users' education, in order to identify and intervene in problems related to medications.

Considering the user as the protagonist of his therapeutic process can be a valuable tool for the achievement of quality care, since knowledge about the disease process and the psychopharmaceuticals used facilitates the agile recognition of possible adverse reactions, as well as expansion of autonomy.

Identifying the weaknesses of mental health care can favor the direction of appropriate behaviors, such as the development of public policies inherent to the promotion of quality of life of patients who make up the network of psychosocial care.

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