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Elderly patients with adaptive disorder diagnosis in psychogeriatry interconsultation: clinical profile and therapeutic approach

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SUMMARY

Introduction. Adaptive disorder is a frequent diagnosis but poorly studied in the elderly population hospitalized. Despite it is considerate benign and non-subsidiary entity of improvement through pharmacological treatment. It can evolve in a difficult way and the pharmacological treatment is widespread. The use of drugs could be harmful the elderly population with pluripathology and polypharmacy.

Methods. A retrospective descriptive study, total of 123 patients diagnosed with adaptive disorder and attended by the Psychogeriatric Liaison in a third-level hospital between 2016 and 2017. Medical history, management at diagnosis and follow-up until one year after discharge were collected on.

Results. At the diagnosis of adaptative disorder the 75.9% of all patients received pharmacological treatment, while only 22.8% were referred to psychology. Only 50% of patients were referred to mental health upon discharge. The 13.8% of patients died before discharge from hospital. During the follow-up year, the 72.6% required a new hospital admission. And of this group, the 16.6% required increasing the dose of drugs.

Conclusions. This study provides data on the clinical management of this complicated and frequent profile of patients. In addition, this work is a starting point for future lines of research that can shed light on an aspect very poorly reflected in the current medical literature despite the aging of the population.

Key words. *Adjustment disorder, geriatrics, psychogeriatry, consultation-liaison psychiatry, psychopharmarmacology.*

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ANCIANOS CON TRASTORNO ADAPTATIVO EN LA INTERCONSULTA DE PSICOGERIATRÍA: PERFIL CLÍNICO Y ABORDAJE TERAPÉUTICO

RESUMEN

Introducción. El trastorno adaptativo es una entidad clínica frecuente pero muy escasamente estudiada en población anciana hospitalizada por causas somáticas. A pesar de su doble consideración como entidad benigna y no subsidiaria de mejoría mediante tratamiento farmacológico, su evolución puede ser tórpida y el empleo de psicofármacos está muy extendido. En una población anciana con pluripatología y polifarmacia, el uso de fármacos podría ser nocivo.

Métodos. Estudio descriptivo retrospectivo de 123 pacientes con diagnóstico de trastorno adaptativo atendidos por la Interconsulta de Psicogeriatría de un hospital de tercer nivel en los años 2016 y 2017. Se valoran antecedentes, manejo al diagnóstico y durante el seguimiento posterior hasta el año.

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Resultados. Un 75,9% del total de pacientes recibieron tratamiento farmacológico al diagnóstico de trastorno adaptativo, mientras que solo un 22,8% son derivados a Psicología clínica. Al alta, solo 50% de los pacientes son derivados a Salud Mental. El 13,8% de los pacientes fueron *exitus* antes del alta de hospitalización. El 72,6% precisaron durante el año de seguimiento un nuevo reingreso hospitalario, y de este grupo, el 16,6% precisó escalada en la dosis de psicofármacos.

Conclusiones. Además de aportar datos sobre el manejo clínico de este perfil complejo y frecuente de pacientes, este trabajo sirve como punto de partida para futuras líneas de investigación que puedan aportar luz sobre un aspecto muy pobremente reflejado en la bibliografía médica actual a pesar del envejecimiento inexorable de la población.

Palabras clave. *Trastorno adaptativo, geriatría, psicogeriatría, interconsulta psiquiatría, psicofarmacología.*

INTRODUCTION

In the DSM-IV, adaptive disorder was defined as a transient maladaptive reaction to identifiable psychosocial stressors[1], which excluded its diagnosis in the absence of an external stressor temporally close to the symptomatic onset[2]. In the case of the International Classification of Diseases (ICD), the term "adaptive reaction" was incorporated since its ninth revision in 1978[3].

The inclusion of the diagnosis of adaptive disorder in the main nosological classifications contributed to the extension of its use, but its validity has been widely questioned[4]. It has been criticized for being an attempt to medicalize problems of life[5], its use as an "umbrella diagnosis" when the criteria for other disorders are not met, and its diagnostic instability[6]. However, it has been maintained in classifications due to its undeniable clinical utility[2].

Recent research, such as that developed by Maercker and his group, has led to a reconceptualization of the diagnosis, in which the benignity of its clinical course and evolution is questioned, ceasing to be a diagnosis of exclusion to be identified based on specific positive symptoms[7]. Both DSM-V[8] and ICD-11[9] have accepted these postulates, and the entity is now included in the group of stress-related disorders.

In the elderly, the prevalence of 2.3% have been found in the general population [10]. There is likely to be a higher risk of adaptive disorder with aging [11], and it is in the field of consultation-liaison psychiatry where the diagnosis of adaptive disorder is most frequent[12], reaching 12% of patients of any age admitted to a hospital[13]. Its incidence almost triples the incidence of major depression in medically hospitalized patients[14].

Regarding its therapeutic approach, there is an expectation of symptom remission once the stressor has disappeared[4], with psychotherapy being the treatment of choice[12].

There is no scientific basis for the use of psychotropic drugs, and their use is not endorsed by clinical practice guidelines[4,15]. Additionally, there are no guidelines on the treatment of adaptive disorders in patients with medical illness[16]. Furthermore, no differences in efficacy have been found between psychotropic drugs and placebo[17]. The use of medication in hospitalized patients varies widely, ranging from 23.7% [18]to 90.2% of patients diagnosed with an adaptive disorder[19].

In terms of prognosis, complete remission is expected[15], although the evolution of adaptive disorders related to a serious illness is associated with the evolution of that illness[2]. In some cases, the evolution is slow, with a 2% rate of completed suicides at 5 years[20], and up to 21% of patients developing major depression or alcohol dependence at 5 years[21]. In patients with medical illness, 2.9% of cases are reclassified as major depression shortly after the initial diagnosis[16]. In the Danish population, mortality at 15 years was 12% for those with an adaptive disorder, compared to 5.3% in the general population[22].

There are multiple reasons to study adaptive disorders in elderly patients admitted to a general hospital[12], such as their high frequency in the hospital setting, the aging population, and the limited knowledge about adaptive disorders affecting geriatric patients, especially those who are hospitalized.

Given the iatrogenic risk in a population with multiple illnesses and polypharmacy, it is necessary to study treatment guidelines for a clinical entity with questionable pharmacological approaches[4,15].

MATERIALS AND METHODS

An observational and retrospective study was conducted on patients aged 65 or older who were admitted for a medical reason and treated by the Consultation-Liaison Psychiatry Unit (CLPU) at a third-level healthcare center, the Doce de Octubre University Hospital in Madrid, between January 2016 and December 2017, and who received an initial diagnosis of an adaptive disorder. To be included in the study, each patient had to meet the diagnostic criteria of ICD-10 for the diagnosis

of an adaptive disorder. As an exclusion criterion, as specified in the ICD-10 classification, the symptoms should not be severe enough to justify a more specific diagnosis. Therefore, if another mental disorder could be diagnosed, an adaptive disorder could not be diagnosed, and the patient was not included in the study.

The study was carried out in accordance with the Declaration of Helsinki and was approved by the corresponding healthcare center ethics committee.

The main objective of the study was to describe the prevalence of pharmacological treatment in elderly patients diagnosed with an adaptive disorder in the psychiatry consultation-liaison unit of the hospital during hospitalization for non-psychiatric causes. Given the limited knowledge of this clinical entity in both elderly and hospitalized populations, secondary objectives focused on purely descriptive tasks: obtaining cross-sectional and follow-up clinical data from elderly patients hospitalized for non-psychiatric causes and with a diagnosis of an adaptive disorder. Specifically, the collected variables focused on psychiatric and organic histories, detailing the prevalence of pharmacological treatment with different types of psychotropic drugs, and the characteristics of adherence to follow-up and treatment in different mental health settings after hospital discharge.

DATA SOURCES AND DESCRIBED VARIABLES

After identification as a case in the patient database, retrospective data collection was performed by reviewing the medical records: the hospital record (HCIS; Health Care Information System), the record shared with primary care (Horus), and the history of pharmacological prescriptions per patient (MUP; Unique Prescription Module).

The variables collected include four moments in the patient's medical history, namely: background, hospitalization and diagnosis of an adaptive disorder, follow-up at 6 months after discharge, and follow-up at 1 year after discharge.

The variables collected are the following:

Table 1 Variables analyzed in the study

Sociodemographic variables: age, sex, marital status, and cohabitation status.
Background: cardiovascular risk factors and comorbidity (hypertension, dyslipidemia, diabetes, obesity, previous or current myocardial infarction, previous or current stroke, and arrhythmias); substance use (active smoking, daily amount of cigarettes, active alcohol consumption, cannabis use, cocaine or other drugs); psychiatric history (personal psychiatric history, suicide history, previous diagnosis of cognitive impairment, and previous cognitive screening); history of psychotropic drug use (previous use of SSRIs, dual antidepressants, other antidepressants, antiepileptics, antipsychotics, benzodiazepines, equivalent doses of lorazepam, and other psychotropic drugs).
Variables related to psychiatric hospital care: referral (organic cause of hospitalization, referring service); psychiatric assessment (attribution to hospitalization, current suicidality, lethality of suicidal act); immediate therapeutic approach (prescription of psychotropic drugs, prescription of selective serotonin reuptake inhibitors (SSRIs), dual or other types of antidepressants, prescription of benzodiazepines and their equivalent doses, prescription of antipsychotics, prescription of antiepileptic drugs, prescription of bitherapy); therapeutic approach at discharge (prescription of psychotropic drugs, prescription of SSRIs or dual antidepressants, benzodiazepines, antipsychotics, or antiepileptics); death before discharge.
Variables after hospital discharge: referral at discharge (primary care, psychiatry, clinical psychology); outpatient mental health care (non-attendance, discharge at first appointment, later discharge, follow-up continuation); diagnostic stability; clinical evolution (readmission, death during follow-up, cognitive deterioration during follow-up); use of psychotropic drugs (use of psychotropic drugs, use of antidepressants, antipsychotics, benzodiazepines, or antiepileptics, modification of pharmacological regimen if readmitted).

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STATISTICAL METHODOLOGY

A descriptive analysis was performed, including the sociodemographic and clinical characteristics of the sample (Table 2).

An opportunistic targeted sampling was conducted through the patient database of the General Psychiatry Interconsultation at the 12 de Octubre University Hospital. A total of 450 patients were initially added to the study, corresponding to all those referred to the Psychogeriatric Section for being over 65 years old. After the initial selection, all patients without a diagnosis of Adaptive Disorder or who met any of the exclusion criteria designated for the study were discarded, resulting in a final sample of 123 patients.

Quantitative variables were described using median and standard deviation. Non-quantitative variables were described by indicating the total number and proportions. A bivariate analysis was conducted to study the association between the most relevant variables using contingency tables, including total figures and proportions, as well as Chi-Square (X2) statistics and contingency coefficients (CC) to assess whether there was an association between certain variables and, if so, also evaluate the intensity of it. IBM SPSS Statistics 23 (IBM Corp., Armonk, NY, USA) was used for data analysis.

Table 2 Sociosanitary characteristics and history of health care utilization.

Parameter	
Number of patients	123
Age	76,41 (6,46 DT)
Women	52,8%
Marital status	57.7% married; 28.5% widowed; 4.9% separated or divorced
Living arrangement	49.6% with a partner; 22.8% alone; 20.3% with relatives; 2.4% in institutions
Hypertension	74%
Dyslipidemia	55,3%
Diabetes	35,8%
Obesity	30,1%
Previous or current myocardial infarction	12,2%
Previous or current stroke	8,1%
Arrhythmias	39,8%
Smoking habit	13,8% (27,6% not collected)
Alcohol consumption	6,5% (30,9% not collected)
Psychiatric history	37,4% (6,5% not collected)
Previous isolated suicidal ideation	8,1%
Previous self-harm behavior	7,3%
Previous use of psychotropic medications:	43,9%
Benzodiazepines	27.6% (with an average dose of 1.38mg of lorazepam)
Selective serotonin reuptake inhibitors	19,5%
Dual antidepressants	8,1%
Mirtazapine/trazodone	14,6%
Gabapentin/pregabalin	5,7%
Antipsychotics	8,9%

RESULTS

A total of 123 elderly patients with a diagnosis of adaptive disorder were identified. 64.2% of patients identified hospitalization as the primary stressful agent. 5.7% of the elderly patients presented evident cognitive deterioration in the informal psychiatric assessment.

During hospitalization, 11.4% reported having active death ideation, 3.3% had engaged in suicidal behavior, and 1.6% had attempted suicide but survived.

The proportion of patients taking psychotropic drugs before admission was 43.9%. **Table 2** shows the proportions by drug groups. Among patients for whom hospitalization was identified as the primary stressful agent in their adaptive disorder, 75.9% received new pharmacological prescriptions after psychiatric evaluation (X2 = 2.896; p = 0.089).

Taking or not previously taking benzodiazepines did not affect the prescription of SSRIs, with prescription rates over 40% in both cases (X2 = 1.480; p=0.477). Similarly, taking or not taking SSRIs did not affect the prescription of benzodiazepines, although in both cases the prescription rates were below 30% (X2 = 1.185; p=0.553). New prescriptions for benzodiazepines occurred in 27.6% of the elderly patients. 17% of the patients received mirtazapine and 15.4% received trazodone. Regarding the use of antipsychotics, 17.1% of the patients received new prescriptions, either because they started taking them or because their dosage was

adjusted. These new prescriptions of antipsychotics occurred in patients with a history of dyslipidemia (17.6%), diabetes (27.3%), obesity (27%), myocardial infarction (33.3%), arrhythmias (32.7%) or stroke (20%). 6.6% of the elderly patients were taking doses of benzodiazepines equivalent to 3 mg or more of lorazepam prior to evaluation, and this number rose to 8.6% including new prescriptions. 43.9% of the patients received combination psychotropic medications. 22.8% of the elderly patients were referred for psychotherapy during their hospital stay.

Regarding patient outcomes, 13.8% of the patients died before hospital discharge. At the time of interconsultation discharge, 85.4% still had a diagnosis of adaptive disorder. Among the survivors, 50% of the elderly patients were referred to Mental Health: 35.8% to Psychiatry and 14.1% to Psychology. Therefore, of the initial sample, 31.1% were referred to Psychiatry and 13.2% to Clinical Psychology (X2 = 9.567; p=0.048; with CC=0.279; p=0.048). In 86.8% of patients referred for discharge to Psychiatry, the diagnosis was maintained, compared to 93.3% maintenance of the initial diagnosis in patients referred for discharge to Psychology (X2 = 59.963; p=0.000).

In the group of patients referred for discharge to Psychiatry, 50% had a history of pharmacological treatment before the hospital diagnosis of adaptive disorder (X2 = 5.402; p=0.714), while 92.1% of patients who received that referral for discharge received a new pharmacological prescription at the time of hospital diagnosis of ADAPTIVE disorder

Well, a new prescription or an increase in previous doses were prescribed. Of the total diagnoses of adaptive disorder that received pharmacological prescriptions, 35.4% were referred to Psychiatry and 27.3% to Primary Care, although there was a 23.2% loss in follow-up. 7.1% of patients who received new prescriptions were directly discharged without referral, and another 7.1% were referred to Psychology (X2 = 20.088; p=0.000).

Of those patients for whom data is available, 41% did not attend the Mental Health Center (MHC), while 12.2% of the elderly were discharged in the first consultation and another 12.2% during the follow-up in Mental Health, with 34.1% of the elderly initially referred still in follow-up after one year, which represents 58.29% of the patients who attended Mental Health.

Regarding patients with suicidal tendencies, of the 4 elderly individuals who had engaged in self-injurious behavior, only 1 attended Mental Health, but data for the other 3 were lost. Of the 4 patients who presented with suicidal ideation and were referred to Mental Health, one was discharged in the first consultation, another during the follow-up, one did not attend, and data for the fourth patient were lost. The 2 failed suicides were referred to Mental Health: one attended the first appointment, and the other did not attend. After a year, 64.3% of those who presented with suicidal ideation at diagnosis had died, 25% of those who engaged in self-injurious behavior, and 50% of those who had a failed suicide (X2 = 6.409; p=0.894).

During the year of follow-up, the proportion of deaths was 43.9% (2.4% lost to follow-up). There were no significant differences in deaths according to housing situations (institutionalized, living alone, living with a partner).

Of the 106 elderly individuals who were discharged from the hospital, 72.6% required a new hospital readmission during the year of follow-up (X2 = 58.742; p=0.000, with CC=0.569; p=0.000). Among patients with available data on readmission, the use of psychotropic drugs increased in 16.6% of cases, remained stable in 51.5%, and was reduced in 31.8% (X2 = 106.936; p=0.000).

Up to 20.3% of patients received a different diagnosis than adaptive disorder at the end of the follow-up period.

Regarding pharmacological treatment, of those patients who received new prescriptions for psychotropic drugs, 23.2% maintained treatment in the 6 months following, while 47.5% did not (29.3% due to loss of follow-up (X2 = 18.021; p=,000)). However, at the one-year follow-up, with a 48.5% loss of follow-up, the percentage of patients who maintained the new prescriptions increased to 27.3% (X2 = 9.887; p=,020).

DISCUSSION

To our knowledge, this is the first study to address the practice of intervention and the evolution of cases of elderly patients admitted for organic causes and diagnosed with adaptive disorder.

Initially, it is striking that 37.4% of the elderly have psychiatric histories, although an epidemiological study found 40.1% of mental histories in the elderly population of the city of Madrid[23]. This raises the question of whether there are no more requests for consultation with Psychiatry for having psychiatric histories, but since this is a sample of cases, it is not possible to determine if the presence of psychiatric histories is a risk or protective factor for the development of an adaptive disorder in the hospital setting, or for the decision to consult Psychiatry.

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The high prevalence of psychiatric histories is consistent with 43.9% of the elderly in our sample taking psychotropic drugs. 8.9% of the elderly were previously taking antipsychotics, a noteworthy figure, although the prevalence of psychotic disorders in the elderly is reported at 1.15%[24], and it is common to prescribe them for the management of depressive, anxious, or insomnia symptoms[25].

Despite the high percentage of patients previously receiving benzodiazepines (27.6%), the average dose is low, at 1.38mg/day of lorazepam equivalent milligrams, consistent with an extended pattern of use and not abuse.

Given the characteristics of our work, we cannot determine the real prevalence of adaptive disorders in patients admitted for medical-surgical causes in our hospital, although it is expected that the actual prevalence far exceeds the 2.3% identified in the general elderly population[10].

Only 64.2% identified the hospitalization as the precipitant of the adaptive disorder, without finding significant differences between the presence or absence of psychiatric history. This suggests that, in the face of a destabilizing agent related to physical health, the presence of psychiatric history does not confer a greater risk of adaptive disorder.

75.9% of the elderly received new pharmacological prescriptions, despite the lack of scientific basis for it[4,15]. Our data match with the prescription rates in hospitalized individuals with adaptive disorder[18], reaching figures of medicalization of 90.2% in a health system similar to ours[19]. However, in 17.1% of patients, antipsychotics were added or doses were increased, and benzodiazepines were supplemented in 27.6%.

It is striking to note the increased use of antipsychotics to address a non-psychotic disorder, where pharmacological treatment is not recommended and where there is no difference compared to placebo[17]. This is particularly concerning, given that the comorbid presence of delirium, which could justify the occasional use of antipsychotics during hospitalization, has been ruled out. Furthermore, in the elderly population, a silent neurodegenerative pathophysiological cascade[26] may already be occurring, even if there is no clinical manifestation or diagnosis of dementia yet[27]. This is known to increase the risk of death associated with the use of antipsychotics in dementia. Our data support the hypothesis that symptomatic pharmacological approaches are chosen in clinical practice, contrary to evidence[17].

13.8% of patients died before discharge, and we were unable to determine the attributed cause of death. This in-hospital mortality, with a mean age of 76.41 years, is higher than that found in a geriatrics acute care unit in our country, with a 10.1% mortality rate and a mean age of 86.7 years[28]. However, in our work, the elderly had all types of medical-surgical processes and were not treated by geriatricians.

A recent meta-analysis has found a significant increase in short-term mortality due to the use of atypical antipsychotics in the elderly (OR=1.38) and in patients with dementia (OR=1.5) [29], although our results do not allow for an analysis of the relationship between medication titration or initiation and deaths.

Although psychotherapy is the treatment of choice[12], only 22.8% were referred to Psychology during hospitalization and 14.1% after discharge. A recent update on the state of the art reminds us that there is still little evidence regarding the use of psychotherapy, but considers that the new diagnostic conceptualization may stimulate research on specific psychotherapies[30]. It is possible that the scarcity of specific professionals conditions both over-medicalization and the low percentage of referrals to Clinical Psychology. The authors of a study conducted in Barcelona also argue that there is a tendency to over-medicate in the face of scarce psychological care resources[19].

One aspect that conditions our results and clinical practice is the lack of diagnostic stability. At discharge, only 85.4% of patients maintained the diagnosis of adjustment disorder, while after one year of follow-up, 30.7% received a different diagnosis. Despite the recognized and high diagnostic instability[6], our figures exceed those found in the short term, with a 2.9% reclassification as major depression in patients with somatic comorbidity[16], or in the long term, with 21% of patients who will develop major depression or alcohol dependence within 5 years[21]. It is possible that in elderly patients and in a hospital context, there may be a diagnostic tendency to erroneously consider said stressful agent as justification for a diagnosis of adjustment disorder. However, we know that in geriatric unipolar depression, life events are an important cause of the precipitation of first episodes[31].

At discharge, 92.1% of patients referred to Psychiatry had received new medication or an increase in the dose of previous prescriptions. In a study conducted at the Hospital Clinic in Barcelona, in elderly patients diagnosed with adjustment disorder, 84.4% were referred to a doctor, more often to Primary Care than to Mental Health (49.7% vs. 34.7%)[19].

The study found that 41% of the elderly patients referred to the Mental Health Service did not attend, but there is no data on whether there is a relationship between this

and the severity of somatic illness, spontaneous resolution, or psychopathological severity. There is a clear need to optimize continuity of care between hospital and outpatient settings. An optimistic approach might argue that in patients with advanced cancer, adaptive disorders improved in up to 53.8% of cases after 6 months[32], while in an outpatient population without significant somatic illness, 75.3% of adults recovered from an adaptive disorder within 6 months[21].

Despite this supposed benignity, the study's findings on hospitalized elderly patients question the favorable prognosis, in line with Maercker's group[33]. Of the elderly patients who attended Mental Health, 58.3% continued follow-up and 48.2% of patients continued pharmacological treatment after a year. In those patients who received new prescriptions for psychotropic drugs and who were not lost to follow-up, one-third continued the new prescriptions and in two-thirds, the new prescriptions made during hospitalization could be eliminated in approximately 6 months.

One surprising finding was that from the intermediate evaluation to the one-year evaluation, the percentage of patients with more medication than baseline increased. The researchers suggest that this increase could occur in a specific sequence: 1) symptomatic improvement; 2) medication withdrawal due to improvement; 3) non-reactive clinical worsening; 4) substitution of the diagnosis of adaptive disorder; 5) reintroduction of pharmacological treatment. Longitudinal studies with more specific designs are needed to evaluate this hypothesis.

In the year following discharge, 72.6% of elderly patients required hospital readmission, with increased medication use in one-sixth of cases and medication de-escalation in two-sixths. Although up to one-third of diagnostic changes might be assumed based on the data, identifying potentially endogenous mental disorders in which the use of psychotropic drugs may be urgent, in over two-thirds of cases the diagnosis would remain the same, which does not exempt trying to rationalize the use of psychotropic drugs.

In terms of mortality, in the general population in Denmark, the 15-year mortality rate of patients with an adjustment disorder was more than twice that found in the control group, but there are no studies on this in the elderly population[22]. It should be noted that there may be confounding factors, given that it is more likely to present with an adjustment disorder in the face of a potentially serious medical condition, such as before a stroke[34].

In our sample, there does not appear to be a clear imbalance with respect to higher mortality in the absence of a diagnosis of adjustment disorder. In our sample, 43.9% of patients died within a year. In other longitudinal studies in geriatric populations with hospitalization, mortality rates of 26.1% at 6 months and 42.2% at 1 year were found, respectively, although in these studies the mean age was 86.6 years and 86.7 years, respectively[28,35]. It is possible that in the elderly population, the presence of an adjustment disorder has little relative weight with respect to higher mortality after hospitalization. Prospective studies seem necessary to evaluate the existence of a higher risk of morbidity and mortality due to organic causes in the elderly with adjustment disorder, both due to inherent risks of the disorder itself and to psychotropic drugs used in its management.

We do not have data on the follow-up regarding the suicide risk of elderly patients, although during hospitalization, 11.4% had active thoughts of death, 3.3% had performed self-harm, and 1.6% were considered frustrated suicides. It is known that many patients with a diagnosis of adjustment disorder have suicidal ideation or behavior, and advanced age is a risk factor for suicide[36]. The subgroup of patients with suicidal tendencies is very small and does not allow extrapolations, both in terms of difficulties in continuity of care and short- and medium-term risk of completed suicide.

To our knowledge, this is the first study to examine elderly patients with organic hospitalization and a hospital diagnosis of adjustment disorder. Another strength is that our sample may be representative of the elderly population requiring hospitalization, as it was recruited in a tertiary hospital. In addition, the study has a moderate sample size.

This retrospective study has relevant limitations. Firstly, illegal drug use could not be retrieved from the medical history, although in absolute terms it seems relatively unimportant. Furthermore, no standardized cognitive assessment data was obtained, which in the case of elderly patients could have indicated a limitation in the use of benzodiazepines or antipsychotics due to their higher mortality rate in dementia[27]. Regarding the diagnosis, as noted in a previous study[19], the absence of a structured clinical interview can lead to diagnostic errors. On the other hand, there were more information losses than expected in a prospective design.

It is important for future studies to separately evaluate the group of patients with pre-existing conditions from the group of patients with de novo psychiatric symptoms, since we believe that the lack of division in our study limits the usefulness of the information obtained regarding real-world practice and patient outcomes.

In conclusion, elderly patients who are admitted to a hospital for somatic reasons and are referred to psychiatry

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and diagnosed with adjustment disorders do not differ in terms of psychiatric history and psychotropic drug use from the general elderly population. The intrahospital diagnosis of an adjustment disorder increases the prescription of psychotropic drugs, despite the lack of evidence justifying their use. Only 1/5 of patients are referred to psychology within the hospital and only 1/7 are referred to outpatient services, despite psychotherapy being the treatment of choice. Although the diagnosis of an adjustment disorder is considered benign, we found that 1/3 of patients receive a different diagnosis during follow-up and half of patients who were prescribed new medication and had data available one year after admission continue to receive psychotropic drugs, with a high rate of mental health follow-up. Future research is needed to better understand the outcomes and mental health needs of elderly patients diagnosed with adjustment disorders during hospitalization.

Ethical Considerations

This study was conducted in accordance with the Declaration of Helsinki and in accordance with the main laws and regulations on data protection, ensuring the privacy of the data of the subjects included. The study has the favorable report of the corresponding healthcare research ethics committee.

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Conflict of Interest

The authors declare no conflict of interest related to this article.

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