Research Article
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Comorbidity in an outpatient psychogeriatric sample: results from a mental health unit

Abstract

Introduction: Comorbidity in geriatric patients is very high, also is in depressed and demented patients, the most frequent psychiatric conditions in geriatric population. The goal of this work is to describe morbidity in a psychogeriatrics (PG) sample attending a Mental Health Unit (MHU).

Method: Descriptive, cross-sectional study of a sample of 211 PG patients, selected between 2.222 patients referred to the MHU of the Hospital Clínico Universitario de Zaragoza in the course of 23 months. Inclusion criteria: patients older than 60 years with either: suspicion or diagnosis of dementia, first-onset behaviour disorder or psychotic symptoms, and/or physical morbidity. Instruments: Cumulative Illness Rating Scale (CIRS); International Statistical Classification of Diseases and Related Health Problems (ICD-10).

Results: Mean CIRS and Severity Index (SI)-CIRS in the PG sample was, respectively, 9,5 (SD 3,2) and 1,7 (SD 0,3). We did not find statistically significant differences on CIRS nor SI-CIRS by diagnostic group (p>0,05). The most frequent impaired system in our PG sample was vascular (67,2%), followed by neurological (56,9%), endocrine-metabolic (55,9%) and rheumatologic (50,5%). The most frequent impaired system in patients with Organic Mental Disorder was neurological, with significant differences (p= 0,000) related to the rest of the sample. The most frequent impaired system in patients with mood and anxiety disorders was vascular (71,4% and 64%, respectively), but differences with the rest of the sample were not statistically significant (p>0,05). Patients with anxiety disorders have less frequent neurological impairments than the rest of the sample (p = 0,009).

Conclusion: We found high comorbidity in PG outpatients, which could influence the evolution and the treatment of the psychiatric pathology. It is important to recognize comorbidity when PG patients are assessed at the MHU.

Keywords: psychogeriatry, morbidity, cumulative illness rating scale, mental health unit

Volume 3 Issue 2 - 2018

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Received: December 17, 2017 | **Published:** March 26, 2018

Abbreviations: CIRS, cumulative illness rating scale; MHU, mental health unit; OMD, organic mental disorder; PG, Psychogeriatrics; PSU, psychoactive substance use; SI-CIRS, Severity Index- cumulative illness rating scale; SD, standard deviation.

Introduction

According to the World Health Organization (WHO) the proportion and absolute number of old people in populations around the world are increasing dramatically due to increasing life expectancy and decreasing in fertility rates.[1] Age increases the risk of many health disorders. Therefore, older people are more likely to experience comorbidity (presence of several medical conditions at the same time). Comorbidity is associated with higher of health care utilization, worsening of quality of life and increasing risk of mortality.[2] Several studies claim that more than half of all older people are affected by comorbidity, with the prevalence increasing sharply in very old age.[3] According to data from Global Burden Disease,[4] the greatest burden of disability for old people is estimated to come from sensory impairments, back and neck pain, chronic obstructive pulmonary disease, depressive disorders, falls, diabetes, dementia and osteoarthritis. Depressive disorders affect about 2-3% of older people living in the community[5] and about 10% of older adults living in long-term care facilities.[6] Prevalence of dementia is estimated between 5,6 and 7,6% in 60-aged people and older.[7] Both depression and dementia are associated with higher morbility (see discussion).

In this context, the goal of this work is to describe comorbidity in a psychogeriatrics (PG) outpatient sample attending a Mental Health Unit (MHU), both in the total sample and by psychiatric diagnosis.

Material and methods

Sample was recruited from patients referred to the MHU at the Hospital Clínico Universitario de Zaragoza, which covers attention for a population of 132.704 inhabitants, along a period of 23 months (March 2015 to January 2017). 2.222 new patients older than 18 were referred to the MHU during this period, the most frequently (69%) by their General Practitioner. A sample of 211 PG patients was selected with the following inclusion criteria, defined by the team of the MHU: subjects older than 60 years +1) psychiatric symptoms in patients with a diagnosed dementia; or 2) suspicion of cognitive impairment; or 3) new-onset psychotic symptoms (including hallucinations, delusions, suspiciousness, confusional states); or 4) behavioral disturbances (including restlessness, agitation/aggression, oposicionism,

disinhibition); or 5) depressive or anxiety symptoms in the context of a somatic illness; or 6) complexity of management (substance use disorder, personality disorder, social problems...). These patients were assessed by a same psychiatrist with formation and experience in geriatric patients.

Psychiatric diagnosis were made after psychiatric assessment (or delayed up to 6 months in doubtful cases) according to ICD-10 criteria. For the purposes of this work, we considered the following categories: 0) Organic Mental Disorder (OMD) (including dementia) (F 01-09 ICD-10); 1) Psychoactive substance use (PSU) (F10-19 ICD-10); 2) Schizophrenia and other psychotic disorders (F20-29 ICD-10); 3) Mood disorders (including depressive disorders) (F30-39 ICD-10); 4) Anxiety disorders (F40-48 ICD-10); 5)Physiological disturbances (including primary insomnia) (F50-58 ICD-10); 6) Personality disorders (F60-69 ICD-10); 7) Intellectual disabilities and developmental disorders (F70-98 ICD-10).

Morbidity was assessed by the geriatric version of the Cumulative Illness Rating Scale (CIRS) (Miller MD, 1992). This scoring system measures the chronic medical illness ("morbidity") burden while taking into consideration the severity of chronic diseases in 13 items representing individual body systems: Cardiac, Vascular, Respiratory, Sensorial (visual or auditive impairment), Hepatic, High Digestive, Low Digestive, Rheumatologic, Urinary, Neurologic, Endocrino-Metabolic, Renal, and Psychiatric. The general rules for severity rating of each item are: 0) No problem affecting that system; 1) Current mild problem or past significant problem; 2) Moderate disability or morbidity and/or requires first line therapy; 3) Severe problem and/or constant and significant disability and/or hard to control chronic problems; 4) Extremely severe problem and/or immediate treatment required and/or organ failure and/or severe functional impairment. Severity Index represents mean severity, obtained dividing CIRS total score by number of organs/systems impaired.

Procedure of this study was approved by the Comité de Ética en Investigación de Aragón (CEICA) in February 2016 (CP-CI PI 16/0031).

For statistical analysis we used the SPSS program. A descriptive, transversal analysis of data was made through T-test for mean comparisons in case of continuous variables; otherwise we used frequency tables, calculating the statistic chi-square.

Results

PG patients included in the study (n=211) had a mean age of 77,9 (Standard Deviation (SD 8,1) and 62,1% (n=133) were women. After psychiatric assessment, 116 patients (55,3%) were diagnosed of OMD (84 of them were diagnosed of dementia), 45 patients (21,3%) were diagnosed of Mood disorder and 27 (12,7%) were diagnosed of Anxiety disorder. 8 patients (4%) were diagnosed of psychotic disorders, same frequency than PSU diagnosis. 2 patients (1%) were diagnosed of physiological disorders, same frequency than diagnosis of personality disorder. Only 1 patient was diagnosed of intellectual or developmental disorder.

Mean CIRS total score and SI-CIRS in the PG sample was, respectively, 9,5 (SD 3,2) and 1,7 (SD 0,3). Due that age and sex could influence CIRS, we analyzed CIRS and SI-CIRS by age groups (less than 70, 70-79, 80-89 and 90 or older) and by sex; but differences were not statistically significant in our sample (p>0,05).

Table 1 shows means and standard deviations (SD) of the CIRS and SI-CIRS by diagnostic group. We did not find statistically significant differences on CIRS nor SI-CIRS by diagnostic group (p>0,05).

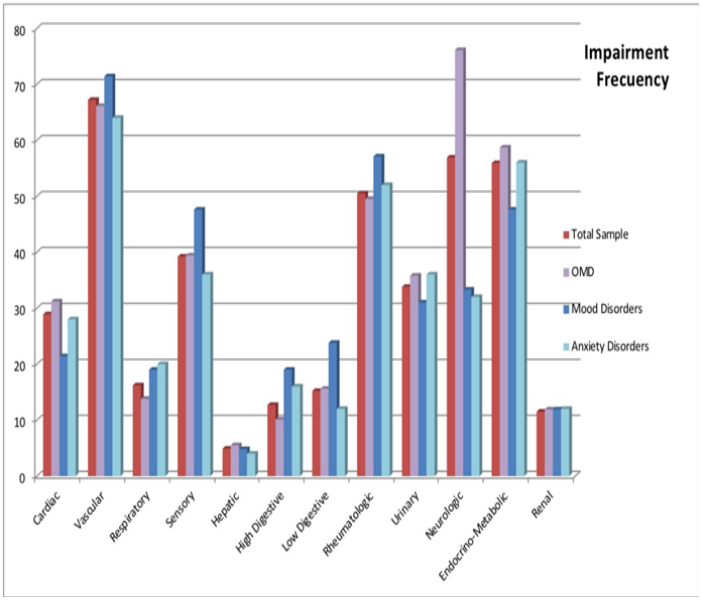

Figure 1 Frecuency (%) of organ/system impairment in the total sample and by diagnosis group.

Figure 1 shows frequency of impairment (%) on each organ/system in the total sample and in the most frequent diagnostic groups (OMD, mood disorders and anxiety disorders).

Table 1 Means and Standard Deviations (SD) of the Cumulative Illness Rating Scale (CIRS) total score and Severity Index (SI)-CIRS by diagnostic group.

Diagnosis group	CIRS total score mean (sd)	SI-CIRS mean (sd)
OMD	8,2 (4,8)	1,7 (0,3)
PSU	5,2 (5,0)	1,7 (0,3)
Psychosis	7,4 (4,5)	1,6 (0,2)
Mood Disorders	7,8 (4,2)	1,7 (0,3)
Anxiety disorders	7,4 (4,7)	1,6 (0,3)
Insomnia or Anorexia	4,5 (6,4)	1,3 (n/a)
Personality Disorders	7,5 (2,1)	1,6 (0,2)
Developmental Disorders	4,0 (n/a)	1,3 (n/a)

n/a: non applicable (n=1).

The most frequent impaired system in our PG sample was vascular (67,2%), followed by neurological (56,9%), endocrino-metabolic (55,9%) and rheumatologic (50,5%). The most frequent impaired system in OMD patients was neurological (76,1%), followed by vascular (66,1%), endocrine-metabolic (58,7%) and rheumatologic (49,5%). Patients with OMD had significantly (p=0,000) more frequent neurological impairment than the rest of the sample; no significant differences were found for other organ/systems. The most frequent impaired system in mood disorder patients was vascular (71,4%), followed by rheumatologic (57,1%), endocrine-metabolic (47,6%) and sensorial (47,6%). However, impairment on any organ/

system in patients with mood disorders was not statistically different than the rest of the sample (p>0,05). The most frequent impaired system in anxiety disorder patients was vascular (64%), followed by endocrine-metabolic (56%) and rheumatologic (52%). Patients with anxiety disorders have less frequent neurological impairments (39%) than the rest of the sample (p=0,009); no significant differences were found for other organ/systems.

Discussion

Our PG outpatients had a mean CIRS total score of 9,5 (SD 3,2) and a mean SI-CIRS of 1,7 (SD 0,3). No significant differences were found between diagnostic groups. In our knowledge, there are no previous reports in the literature measuring comorbidity by an standardized instrument in PG outpatients attended at the MHU. A previous study about comorbidity[8] in a large sample of patients hospitalized in medical or chirurgical wards, attended by a psychosomatic and liaison psychiatry team, with a mean age of 64,6 years, reported mean CIRS es 12,0 (SD 5,4) and mean SI-CIRS 2,3 (SD 0,4). As expected, patients hospitalized by medical or chirurgical reasons had higher morbidity and severity than our sample, attended in a MHU by psychiatric symptoms. But notice that CIRS in our sample is relatively high for an outpatient psychiatric sample; and SI-CIRS in our sample is indicative of mild-moderate morbidity, which might be indicative of chronic morbidity in PG patients.

The most frequent impaired system in our PG sample was vascular, followed by neurological, endocrine-metabolic and rheumatologic. The most frequent impaired system in OMD patients was neurological, followed by vascular, and endocrine-metabolic. Neurological impairment in OMD patients was significantly higher than in the rest of the sample. Our results are consistent with those of systematic review about comorbidity in patients with dementia,[9] that reported neurological disorders as the most prevalent (91%) in these patients, followed by vascular, cardiac and cerebro-vascular disease. Cerebro-vascular disease, cirrhosis, asthma and diabetes have been reported in the literature as important risk factors of cognitive impairment in elderly.[10]

Despite the absence of significant differences with the rest of the sample, we found a high frequency of impairment on vascular and endocrine-metabolic systems in mood disorders patients. Previous studies reported that depressive disorders in elderly are associated with cardiovascular diseases, diabetes, gastro-oesophageal reflux disease,[11] migraine, epilepsy, liver diseases and pulmonary diseases .Several studies have reported a reciprocal relationship between depression and cardiovascular disease: depression is a risk factor for cardiovascular disease and cardiovascular disease is present in about 30% of depressive patients.[12] High comorbidity on depression has been related with worse health outcomes than depression alone, than any of the chronic diseases alone, and than any combination of chronic diseases without depression.[13]

As we hypothesized, our results support the conclusion that comorbidity in PG patients is very prevalent; however it is frequently under diagnosed and undertreated.[14] A better recognition, diagnosis and treatment of morbidity associated with mental disorders in the elderly could eventually improve the quality of life of patients and their health outcomes, including a decrease of mortality risk.

A possible concern regarding our study might be generalizability of our results, due to the fact that it is focused in only one MHU. But notice that our MHU is reference for a large population from the city of Zaragoza (Spain) and surroundings and that the period of inclusion of patients is quite large, so we consider that our results could be representative and comparable with other MHU in our country. Our study has other limitations: 1) in analysis of frequency of impairment of each organ/system, severity of impairment was not considered, so mild impairment counts the same than moderate-severe impairment. However, more severe impairment on every organ/system scores higher on CIRS and global severity is considered on SI-CIRS;2) we only selected in our PG sample patients older than 60 years presenting some inclusion criteria, established by our MHU team, according to information registered at the referral note; this selection bias influences frequencies of psychiatric diagnosis on the sample, with some diagnosis underrepresented in relation to the whole elderly population attended at the MHU. Future studies assessing comorbidity in PG samples in relation to age-matched non-psychiatric controls or in relation to younger psychiatric population should be suitable. As well as studies of an hypothetical association between morbidity and psychiatric outcomes.

Conclusion

Comorbidity is frequent in PG patients and it could influence the evolution and the treatment of the psychiatric disorder.

The MHU is the axis for the management of PG patients in an outpatient basis. If clinicians want to carry out an optimal care activity, it is necessary to increase their consciousness of the need of an integral evaluation of patients, considering each patient as a whole. Assessment should not only focus on the psychiatric symptoms because patients are referred to the MHU, but also include evaluation of comorbidity and chronicity, that PG patients usually present.

Acknowledgments

We acknowledge Medical Residents who participated in data collection of the sample. We acknowledge professionals of the MHU in the Hospital Clínico Universitario de Zaragoza (HCUZ), who have participated and currently participate in the Quality Initiative approved by the Servicio Aragonés de Salud: "Development of a Psycho-geriatric Program in the MHU-HCUZ". We acknowledge Dr. Valero Perez Camo, who drove and supported this initiative.

Conflict of interest

Authors declare that they have not any financial conflict of interest related to this work.

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Citation: Villagrasa B, Guillorme-Baldero E, Romance-Aladren M. et al. Comorbidity in an outpatient psychogeriatric sample: results from a mental health unit. *MOJ Gerontol Ger.* 2018;3(2):157–160. DOI: 10.15406/mojgg.2018.03.00105