COMORBIDITIES PREVALENCE IN ELDERLY PATIENTS WITH CARDIOEMBOLIC TIA/STROKE

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BACKGROUND AND OBJETIVES

Chronic diseases such as stroke often are accompanied by other comorbidities which can alter the prognosis and management of our patients. Elderly patients are specially at risk of multimorbidity, which may be detrimental to pharmacotherapy adherence, rehabilitation therapies and a good functional outcome. The objective of our study is to assess the prevalence of multimorbidity and the principal comorbidities in elderly patients with cardioembolic TIA/stroke secondary to non valvular atrial fibrillation (NVAF) in Aragón, an autonomous community of Spain with 1,325,385 inhabitants.

METHODS

This is a retrospective observational population-based study that worked with data from all patients older than 64 years, registered within the public health system of Aragon from January 2010 to December 2015 with the diagnosis of cardioembolic stroke (infarct or TIA) secondary to a NVAF. Our definition of chronic morbidities was based on the diagnostic clusters defined by Salisbury C et al.² The prevalence of every comorbidity was described in global and by sex and age groups. We define multimorbidity as ≥ 5 diseases.

RESULTS

Of 875 patients (mean age 82.7 years; 56.5% female), the mean number of comorbidities per patient was 8.1 (SD 3.4); hypertension was the more prevalent comorbidity, follow up by hypercholesterolemia in all age groups. Diabetes, cardiovascular diseases and chronic heart failure were the third more frequent in each age-group respectively (65-74, 75-84, ≥ 85). Multimorbidity was present in 86.8% of our patients, being more frequent in women (436, 88.4%) and in those in the age-group of 75-84 years (335, 90.1%).

Table 1: Prevalence of more frequent comorbidities in elderly patients with stroke/TIA secondary to NVAF distributed by age groups

65 a 74 years		75-84 years		>84 years	
Comorbidity	n (%)	Comorbidity	n (%)	Comorbidity	n (%)
	n = 114		n = 371		n = 388
Hypertension	87 (76,3%)	Hypertension	278 (74,9%)	Hypertension	281 (72,4%)
Hypercholesterolemia	65 (57,0%)	Hypercholesterolemia	137 (36,9%)	Hypercholesterolemia	93 (23,9%)
Diabetes	43 (37,7%)	Other CV diseases^	87 (23,5%)	Congestive heart failure	80 (20,6%)
Anemia and other hematologic diseases	34 (29,8%)	Anemia and other hematologic diseases	85 (22,9%)	Dementia	70 (18,0%)
Other CV diseases^	31 (27,2%)	Arthrosis	80 (21,5%)	Diabetes	77 (19,8%)
Arthrosis	26 (22,8%)	Diabetes	76 (20,5%)	Arthrosis	67 (17,3%)
Prostate benign hyperplasia	19 (16,7%)	Prostate benign hyperplasia	38 (10,2%)	Other respiratory disorders*	51 (13,1%)
Obesity	17 (14,9%)	Osteoporosis	33 (8,9%)	Other CV diseases^	39 (10,1%)
Depression	12 (10,5%)	Depression	31 (8,4%)	Other neurologic diseases	34 (8,8%)
Other neurologic diseases	12 (10,5%)	Other neurologic diseases	25 (6,7%)	Anemia and other hematologic diseases	24 (6,2%)

*excluding asma and OCPD. ^excluding myocardial infarct

Figure 1: Prevalence of more frequent comorbidities in elderly patients with stroke/TIA secondary to NVAF

Figure 2: Prevalence of more frequent comorbidities in elderly patients with stroke/TIA secondary to NVAF (MALES)

Figure 2: Prevalence of more frequent comorbidities in elderly patients with stroke/TIA secondary to NVAF (FEMALES)

DISCUSSION

The prevalence of long-term conditions is increasing across the world. Unfortunately, there is great variation in definitions of multimorbidity, some authors define it as the presences of 2 or more chronic diseases, and by this definition, we know is very frequent in stroke patients¹. Other authors prefer to only speak of multimorbidity when the patient has 4 or more comorbidities. We worked with the definition of multimorbidity as ≥ 5 comorbidities, finding a high prevalence of it in our study population (86.8%). But not only quantity matters, “quality” is also important, two patients with the same number of comorbidities can have a drastically different health burden (arthrosis plus prostate benign hyperplasia plus cataract is different to congestive heart failure plus COPD plus severe liver disease). Being so, is important not only to know the prevalence of multimorbidity but also which diseases are more prevalent in patients who had a TIA/stroke secondary to a NVAF, specially in a high risk population as are elderly patients. As expected we found a high prevalence of concordant conditions (hypertension, hypercholesterolemia, etc) and differences in comorbidities prebalence between males and females, and also between the different age groups.

CONCLUSIONS

A cardioembolic stroke is not an isolated entity in elderly patients. In our approach to these patients, we should pay special attention to multimorbidity and cardiovascular diseases, which are frequent in these patients and adds complexity to their management.

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