

# Polypharmacy and cognition disorders in aged

## Polifarmácia e transtornos cognitivos em idosos

Vitorino Modesto dos Santos<sup>1</sup>, Laura Campos Modesto<sup>2</sup>

Dear Editor,

We read with especial interest the recent article by Maragno et al. about the adverse effects of the concomitant use of multiple drugs by elderly people.<sup>1</sup> The study included 141 patients from the age groups between 60 to 69 years (36.9%) and 70 to 79 years (34.0%), and 74.5% of the individuals were females. Scores of Montreal Cognitive Assessment (MoCA) and Brazilian OARS Multidimensional Functional Assessment Questionnaire (BOMFAQ) quantified their functional and cognitive capacity. The majority of patients (124) had arterial hypertension (94), dyslipidemia (51), and diabetes mellitus (40). The average number of drugs per patient was 4.4; and the more often used drugs were omeprazole, simvastatin, acetylsalicylic acid, hydrochlorothiazide, enalapril, losartan, and metformin. Polypharmacy (more than four drugs) occurred in 61 patients, 80 used one to four drugs, and 47 used five to nine drugs. There were 15 patients with inappropriate prescription of the following medications: zolpidem, amitriptyline, diazepam, and clonazepam. Scores of MoCA and BOMFAQ quantified their functional and cognitive capacity.<sup>1</sup> There was a significant relationship between BOMFAQ and MoCA scores about the use of inappropriate medications and the number of prescribed medications. As the study occurred in a geriatric service few prescriptions were inadequate. The authors emphasize the use of polypharmacy and, in particular, inadequate prescriptions impairing the

cognitive and functional conditions of the elderly.<sup>1</sup> The results of the study make clear the role of specialized geriatric knowledge to better evaluate and manage elderly patients without causing additional harm.

In this setting some other comments seem useful on a practical example of the focused issue, previously described in an 82-year old Brazilian female.<sup>2</sup> She was misdiagnosed with Parkinson disease instead of essential tremor, and had a prescription of anticholinergic drug, which caused acute cognitive deficit and repeated fall episodes, causing her admission to have geriatric home care. Laboratory determinations and tomographic images of the head were normal. Her loss of autonomy was considered as Alzheimer disease, before the geriatric specialist discontinued that drug, and the cognition was very rapidly improved. Besides, the control of essential tremor occurred after the use of propranolol.<sup>2</sup> The authors emphasized the relationship of anticholinergic drugs with cognitive deficits and loss of equilibrium in elderly people, as well as the reduction of cholinergic activity in central nervous system of patients with Alzheimer disease. Clinicians must consider the causes of reversible dementia, mainly iatrogenic. Ruling out this condition will allow secure better quality of life with autonomy.<sup>2</sup>

The herein commented articles aim to enhance the awareness of primary health care workers about current polypharmacy and inappropriate treatments, which have a tendency to increase with the growing of

<sup>1</sup>Hospital das Forças Armadas, Brasília, DF, Brazil. <sup>2</sup>Centro Universitário de Brasília, Brasília, DF, Brazil.

**Submission date:** 2/20/2020. **Acceptance date:** 3/5/2020.

**Financial support:** none.

**Conflicts of interest:** none.

**Corresponding author:** Vitorino Modesto dos Santos. SMPW Quadra 14, conjunto 2, lote 7, casa A. Zip code: 71741-402 – Brasília, DF, Brazil – Phone: 55 (61) 3380-2666  
E-mail: vitorinomodesto@gmail.com

the oldest age groups. Accordingly with the tendency of higher rates of centenarian people in next decades, one must capacitate medical students in the major geriatric disorders. Because of the elevated frequency of comorbidities in the elderly population, more complex conditions should be ever managed by specialists in geriatrics.

## REFERENCES

1. Maragno LB, Matta AL, Nascimento DS, Xavier AJ. Polifarmácia e cognição em pacientes com idade avançada. *Rev Soc Bras Clin Med.* 2019 [citado 2022 Mai 24];17(4):180-2. Disponível em: <https://www.sbcm.org.br/ojs3/index.php/rsbcm/article/view/714>
2. Rigo JC, Rigo JF, Faria BC, Santos VM. Demência reversível e quedas associadas ao biperideno. *Rev Psiq Clín.* 2006;33(1):24-7. doi: <https://doi.org/10.1590/S0101-60832006000100004>