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Integral management of elderly with Frailty Syndrome

Manejo integral de anciano con Síndrome de Fragilidad

Joalberto Delgado Prieto [1], **Elisbeth Pérez Montes de Oca** [2], **Frank Romero Reinaldo** [3]

1 University of Medical Sciences of FAR. Central Military Hospital "Dr. Luis Díaz Soto". Havana, Cuba.
2University of Medical Sciences of Havana. Faculty of Medical Sciences "Victoria de Girón". Havana, Cuba.
3University of Medical Sciences of Havana. "General Calixto García" Faculty of Medical Sciences. "General Calixto García" Hospital. Havana, Cuba.

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ABSTRACT

The term "frailty" was conceptualized as: a clinical-biological syndrome characterized by decreased resistance and physiological reserves of the elderly in stressful situations, as a consequence of the cumulative wear and tear of the physiological systems. The objective of this manuscript is to describe the comprehensive management of an elderly person with Frailty Syndrome. This is an 82-year-old male patient who comes to the clinic referring several health complaints. He was diagnosed as a frail patient with gait and balance disorders of multifactorial cause, orthostatic hypotension, sensory deficit (auditory and visual), anxiety-depressive disorder and mild anemia of probable deficiency etiology. A comprehensive treatment program was implemented. Evaluating and identifying frailty in the elderly is a current problem for health professionals to act in the implementation of specific programs, in order to minimize its adverse effects on health.

RESUMEN

El término "fragilidad" fue conceptualizado como: un síndrome clínico-biológico caracterizado por disminución de la resistencia y de las reservas fisiológicas del adulto mayor ante situaciones estresantes, a consecuencia del acumulativo desgaste de los sistemas fisiológicos. El objetivo de este manuscrito es describir el manejo integral de anciano con Síndrome de Fragilidad. Se trata de un paciente masculino de 82 años de edad que acude a consulta refiriendo varias quejas de salud. Se diagnosticó paciente frágil con trastorno de la marcha y el equilibrio de causa multifactorial, hipotensión ortostática, déficit sensorial (auditivo y visual), trastorno ansioso-depresivo y anemia leve de probable etiología carencial. Se implementó un programa integral de tratamiento. Evaluar e identificar en el adulto mayor la fragilidad, constituye un problema actual para que los profesionales de la

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salud actúen en la implementación de programas específicos, a fin de minimizar sus efectos adversos para la salud.

INTRODUCTION

According to United Nations estimates, there are currently 600 million people in the world over 60 years of age. It is estimated that by 2050 there will be more people over 60 years of age than children under 15 years of age. This behavior will be evident in some Latin American countries and Cuba is no exception to this situation. According to the 2020 National Statistical Yearbook of Health, this group represents 21.5%, it is estimated that by 2030 it will be 30.3% and by 2050 36.2%.[1]

The term "frailty" has varied over time and was conceptualized as: a clinical-biological syndrome characterized by decreased resistance and physiological reserves of the elderly in stressful situations, as a result of the cumulative wear and tear of physiological systems. It is related to the occurrence of adverse health effects such as falls, disability, hospitalization, institutionalization and death.[1]

The genesis of this syndrome lies in 3 disorders related to aging (sarcopenia, neuroendocrine deregulation and immune system dysfunction), plus environmental factors.[2]

The diagnosis of frailty syndrome in older adults is a priority for the implementation of specific programs that minimize the effects of this and its consequences. Efforts should be directed towards offering more comprehensive and excellent medical care, improving life expectancy (free of disability) and increasing the quality of life in this stage that many of us will necessarily and fortunately have to live through. This constitutes one of the greatest challenges to face for public health and science for the human species. It is necessary to diagnose this syndrome as early as possible, and avoid its complications.[3,4]

The benefits provided by this integrative vision from a gerontological point of view are widely described. These include a lower incidence of functional decline, a decrease in the rate of readmission, hospital stay, and incidence of pressure ulcers. Savings in human and financial resources

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are also important.[5]

CASE PRESENTATION

82-year-old male patient with a history of high blood pressure for 20 years, regularly treated with enalapril (20 mg tablet, 1 tablet every 12 hours); ischemic cerebrovascular disease for 12 years treated with aspirin (81 mg tablet, 1 tablet a day) which left spastic hemiparesis of the left side of the body as a sequel; benign prostatic hyperplasia for 10 years treated with terazosin (5 mg tablet, 1 tablet a day); fracture of the left hip 3 months ago, operated on with partial prosthesis implantation.

He comes to our center in the morning hours reporting several health complaints: decreased appetite and weight loss about 3 months ago. Worsening ability to move and dizziness when standing up. Worsening short- and long-term memory for 2 months, sometimes he does not remember the name of relatives and objects, difficulty following the thread of conversations. Urinary infections repeated every 2 months; decreased visual and auditory acuity. In addition, feelings of sadness and loneliness are present. With this picture and without other symptoms, it is decided to admit him for further study and treatment

Positive data from the physical examination:

Mucous membranes: hypocolored.

Adipose tissue: decreased, weight 70 kg, height 174 cm, BMI 23.2 Kg/m2.

Respiratory system: vesicular murmur and vocal vibrations decreased globally in both lung fields

Cardiovascular system: IV/VI holosystolic murmur more intense in aortic focus without radiation, blood pressure (Sitting): 110/80 mmHg, blood pressure (Standing): 70/50 mmHg.

Central nervous system: Decreased short- and long-term memory is noted. Spastic right hemiplegia. Scythe-like gait.

Comprehensive Geriatric Assessment:

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1- Biomedical: Weight: 70 kg. Height: 174 cm. Body mass index (BMI): 23.2 kg/m2 Normal weight. Creatinine: 68 µmol/L. Glomerular filtration rate (GFR): Keller formula: 55; BIS1 formula: 77 ml/min/1.73 ------- Stage 2; CKD-EPI formula: 88.8 ml/min/ 1.73 ----- Stage 2. MNA scale (screening): 20.5 points. Risk of malnutrition. SARC-F scale: 6/10 points. Sarcopenia. Norton scale: 18/20 points. Low risk of pressure ulcers.

2- Functional: Barthel scale: 90/100, patient with moderate dependence for basic activities of daily living. Lawton & Brody scale: 3/5 points, Patient with moderate dependence for instrumental activities of daily living. Short Physical Performance Battery (SPPB): 7/12 points. Frail patient. With mild limitation for activities of daily living. IFAH scale: 11/15 points. Frail elderly. Tinetti scale: 17/28 points: High risk of falls. Fall risk scale: 6 points. Medium risk of falls.

3-Psychoaffective: Folstein Mini Mental State Examination (Minimental): 23/30 points. Mild cognitive impairment, associated with depressive disorder (Figure 1). Yesavage Scale: 10/15 points: Depression. Golberg Scale (Depression): 5 points. Suggests depression. Golberg Scale (Anxiety): 8 points: Suggests anxiety.

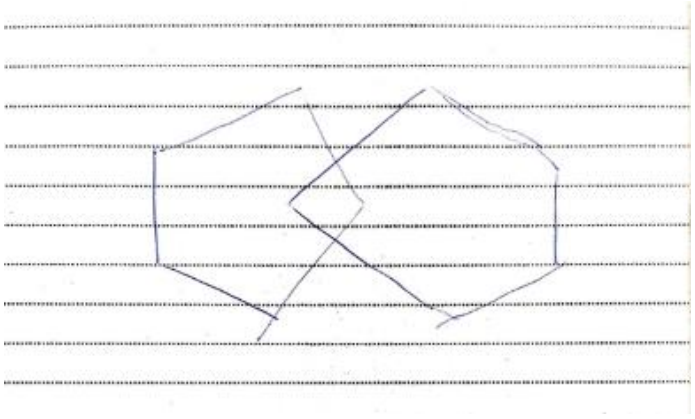

Figure 1. Drawing Test: You must copy a simple drawing of two crossed pentagons. It is considered correct.

3-Social: Guijón scale: 25/25 points. Good social situation. No social risk.

Family APGAR: 10/10 High family functioning. Self-perception of health: regular

Additional tests performed on January 14, 2024: Hemoglobin 11.1 g/L; leukocytosis 7.5 x 109/L; neutrophils 65%; lymphocytes 25%; platelets 193 x 109/L; ESR 40 mm/h; SGOT 48 U/L; SGPT 43 U/L;

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GGT 40 U/L; creatinine 68µmol/L; glucose 5.3 mmol/L; total proteins 58.4 mmol/L, albumin 35 mmol/L; cholesterol 2.9 mmol/L, triacylglycerides 2.31 mmol/L.

Peripheral lamina: Hypochromia XX; macrocytes X; poikilocytosis: crenocytes, ovalocytes and stomatocytes.

Complete abdominal ultrasound: Thin-walled gallbladder with multiple microlithiasis dispersed throughout the organ. Liver of normal size, slightly increased echogenicity, homogeneous texture, no focal lesion. Spleen and pancreas, normal size, echo structure without alterations. Aorta of normal caliber. Kidneys with good cortico-medullary relationship without ectasia or lithiasis. No ascites, no image in pseudokidney. Thick-walled bladder 8mm, with balloon probe inside, with lithiasis towards the floor. Homogeneous prostate without nodules, with an increase in size at the expense of the middle lobe, measuring 48 x 62 x 68 mm, which gives a volume of 71.43 cm3 Grade III.

Plain chest X-ray: Normal cardiac area and aorta, signs of pulmonary emphysema, no pleuropulmonary alterations.

Carotid Doppler: No atheroma plaques observed. Normal study.

Assessment by several specialties:
Urology: Diagnosed benign prostatic hyperplasia. Surgical treatment was suggested.

Otorhinolaryngology: Diagnosed tubal dysfunction.

Ophthalmology: Diagnosed cataracts and hyperopia. Change in lens graduation was indicated.

Rehabilitation: Indicated infrared heat, analgesic current, occupational therapy, multicomponent exercise and cognitive stimulation. 10 sessions.

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Cardiology: Echocardiogram was performed, which showed the absence of structural heart disease. General measures for orthostatic hypotension are indicated.

Psychology: Anxiety-depressive disorder was diagnosed, exacerbated by a biomedical condition. Antidepressant treatment was suggested.

Final diagnosis issued by the primary care physician, a specialist in geriatrics: Frail patient with multifactorial gait and balance disorders. Orthostatic hypotension. Sensory deficit (auditory and visual). Anxiety-depressive disorder. Mild anemia of probable deficiency etiology.

Indicated treatment:

1. Free diet. Increase fluid intake. Slightly increase salt intake. Fiber intake, indicated to improve nutritional status.
2. Pharmacological measures: Escitalopram (10 mg tab) for depressive syndrome. Take 1 tablet orally daily. Vitamin therapy: Nutriforte in tablets also to restore nutritional status. It is indicated to take 1 tablet daily without stopping.
3. General measures: Daily bathing, foot care (ulcers, nail cutting and proper drying); mobilization and rehabilitation. Recommendations are given to the family (wife over 30 years old) and to the patient for stimulation at home. Occupational therapy, multicomponent exercise, cognitive stimulation and gait training are also indicated. Taichi exercises are recommended and measures to avoid falls such as the use of appropriate footwear, adequate lighting, avoiding the use of mats, rugs, or uneven surfaces at home, and adjusting glasses. In addition, orthostatic hypotension measures: use of compression stockings, avoid sudden changes in position, increase fluid intake, increase salt in the diet, physical activity, and elevate the head of the bed. Finally, follow-up by outpatient consultation is suggested.

He was re-evaluated by the geriatrician one month into treatment under the indicated guidelines. Improvement was noted in the following aspects: SPPB: 8/12 points. Pre-frail patient. With mild limitation. Tinetti test: 19/28 points: Risk of falls. Yesavage scale: 6/15 points: Mild depression.

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Folstein Mini-Mental State Examination (Mini-Mental): 27/30 points: Mild deficit.

The patient continued to evolve satisfactorily and has not required hospitalization or medical interventions to date.

The patient's consent was obtained to conduct this investigation and present his case.

DISCUSSION

Patient care within the specialty of Gerontology and Geriatrics is based on the so-called Comprehensive Geriatric Assessment (IGA), which is nothing more than: a structured process of global assessment, often interdisciplinary, in which the multiple physical, functional, psychological and socio-environmental problems that the elderly person presents are detected, described and clarified, the need for services is assessed and fundamentally a progressive, continuous and coordinated care plan is developed, aimed at meeting the needs of the patient and their caregivers. It is based on the principle: The essential thing is to preserve function in the elderly.[8]

IGA arises as a response to the high prevalence in the elderly of undiagnosed needs and problems, of dysfunctions and reversible dependencies not recognized, which escape traditional clinical assessment.[9]

This approach arises from the limitations with which the traditional medical system addresses the health care of the elderly. Among these limitations are: incomplete medical diagnosis and inadequate institutionalization. Lack of systematicity in comprehensive and multidisciplinary medical care. Geriatricization of services has not been achieved. There is overprescription of medications and underutilization of rehabilitation.[5]

The authors consider that the evaluation of frail patients should be interdisciplinary, covering the physical, emotional, psychological, social and support network aspects, in order to detect possible obstacles to the implementation and compliance of treatment, and thus carry out a timely intervention. What was described above was fulfilled in the patient in question and agrees with Sandoval's study.[11] Health professionals should encourage communication between them to share

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decision-making, reduce the duplication of laboratory or cabinet tests, avoiding polypharmacy in the frail patient.[10]

Sandoval[11] in his research also contributes that resistance exercise can maintain and/or restore independence, functional capacity, prevent, delay or reverse the process of frailty. In addition, it improves cardiorespiratory function, mobility, strength, flexibility, balance, cognitive function, decreases depression by improving quality of life and self-perception of health status, and also decreases the risk of falls and post-fall syndrome. This statement is fully agreed upon since it was seen in the outcome of the case, which responded satisfactorily to moderate physical exercise.[11]

Frail elderly people have a high risk of disability and are those who benefit most from preventive interventions. Regardless of the presence of comorbidities, frailty is a prognostic factor for disability in daily life activities.[12]

The evaluation methods and approach used in this patient were ideal. The treatment led to the expected satisfactory result and the importance of multidisciplinary work in the management of the patient as a whole was demonstrated.

CONCLUSIONS

It is concluded that evaluating and identifying frailty in the elderly is a current problem for health professionals to act in the implementation of specific programs, in order to minimize its adverse effects on health.

CONFLICTS OF INTEREST

The authors declare that they have no conflict of interest.

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DECLARATION OF AUTHORSHIP

Conceptualization: Elisbeth Pérez Montes de Oca, Frank Romero Reinaldo.

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Data Curation: Elisbeth Pérez Montes de Oca.

Formal Analysis: Amanda Avello Rodríguez, Blanca Rosa Garcés Garcés.

Investigation: Joalberto Delgado Prieto, Elisbeth Pérez Montes de Oca.

Methodology: Joalberto Delgado Prieto, Frank Romero Reinaldo.

Supervision: Joalberto Delgado Prieto, Elisbeth Pérez Montes de Oca.

Validation: Joalberto Delgado Prieto, Frank Romero Reinaldo.

Visualization: Joalberto Delgado Prieto, Elisbeth Pérez Montes de Oca.

Writing - original draft: Joalberto Delgado Prieto, Elisbeth Pérez Montes de Oca

Writing – review and editing: Joalberto Delgado Prieto, Elisbeth Pérez Montes de Oca, Frank Romero Reinaldo.

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