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CONSENSUS DOCUMENT

Approach to obesity in the elderly population: a consensus report from the Diabetes, Obesity and Nutrition Working Group of SEMI (Spanish Society of Internal Medicine)

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Abstract Obesity in the elderly not only impacts morbidity and mortality but their quality of life. This phenomenon has sparked extensive research and debate regarding treatment recommendations, primarily due to the lack evidence in this specific population. When addressing possible treatment recommendations for older adults with obesity, it is crucial to assess certain essential aspects such as functional status, sarcopenia, cognitive status, and others. Intentional weight loss in this population can be both effective and safe. The best weight loss plan for the elderly revolves around adopting a healthy lifestyle, which includes following a Mediterranean diet pattern and engaging in physical exercise, particularly strength training. Additionally, the use of weight loss medications, particularly glucagon-like peptide-1 receptor agonists (GLP-1 RA) and novel glucose-dependent insulinotropic polypeptide (GIP)/GLP-1 receptor agonists, can provide an additional stage of treatment. In selective candidates, bariatric surgery may

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also be considered. The objective of this document is to propose a comprehensive algorithm of recommendations for the management of obesity in the elderly (above the age of 65), based on scientific evidence and the expertise of members from the Diabetes, Obesity, and Nutrition Workgroup of the Spanish Society of Internal Medicine.

PALABRAS CLAVE
Obesidad;
Ancianos;
Dieta mediterránea;
Agonistas del receptor del péptido glucagonoide 1;
Sarcopenia

Propuesta acerca de la obesidad en la población anciana: informe de consenso del Grupo de Trabajo de Diabetes, Obesidad y Nutrición de la SEMI (Sociedad Española de Medicina Interna)

Resumen La obesidad en los ancianos no solo influye en la morbimortalidad, sino también en su calidad de vida. Este fenómeno ha suscitado una amplia investigación y debate sobre las recomendaciones terapéuticas, debido principalmente a la falta de datos en esta población específica. Cuando se abordan las posibles recomendaciones terapéuticas para adultos mayores con obesidad, es fundamental evaluar ciertos aspectos esenciales, como el estado funcional, la sarcopenia, el estado cognitivo y otros. La pérdida de peso en esta población puede ser tanto eficaz como segura si es intencionada. El mejor plan de pérdida de peso para los ancianos gira en torno a la adopción de unos hábitos de vida saludables, que incluyen seguir una dieta mediterránea y hacer ejercicio físico, especialmente el entrenamiento de fuerza. Además, el uso de medicamentos para adelgazar puede proporcionar una fase de tratamiento adicional, en concreto los agonistas del receptor del péptido glucagonoide-1 (AR GLP-1) y nuevos polipéptidos insulinótropos dependientes de la glucosa (GIP)/agonistas del receptor del GLP-1. Y en determinados candidatos también se puede plantear la cirugía bariátrica. El objetivo de este documento es proponer un completo algoritmo de recomendaciones para el manejo de la obesidad en las personas de edad avanzada (mayores de 65 años), basado en datos científicos y en la experiencia de los miembros del Grupo de Trabajo de Diabetes, Obesidad y Nutrición de la Sociedad Española de Medicina Interna.

Introduction

The global burden of obesity is rapidly increasing worldwide. According to the World Health Organization (WHO), more than 650 million people worldwide are living with obesity, which predisposes them to several clinical consequences, including cardiovascular disease, type 2 diabetes, cancer, chronic kidney disease, mental health issues, and musculoskeletal disorders.[1] Concurrently, the elderly population is growing, and healthcare systems must address the needs of a rising number of individuals over the age of 65 who are affected by obesity and its related complications.

On the other hand, new and effective tools for treating obesity, such as bariatric surgery and drugs like glucagon-like peptide-1 receptor agonists (GLP-1 RA) and novel GIP/GLP-1 receptor agonists, are available. However, their use in older patients is limited due to the lack of robust evidence in this particular population.[2] Age should not be the sole criterion, known as ''ageism,'' for deciding the therapeutic approach to older patients with obesity. It is crucial to adopt an individualized, person-centered approach based on comprehensive geriatric assessments to accurately evaluate the risk-benefit balance of obesity therapies in the elderly.[2,3]

Aging is associated with an increase in abdominal white adipose tissue and fat deposition in skeletal muscle, which significantly affects insulin sensitivity.[4] Obesity is also strongly linked to a diminished quality of life. In this context, prevention and treatment of obesity become even more relevant in older adults. One major concern in treating obesity in elderly individuals is that many may have sarcopenic obesity, which can worsen with weight loss, inevitably resulting in some degree of lean body mass loss.[5,6] Therefore, it is clinically important to identify which elderly individuals with obesity have sarcopenia, and this can be achieved inexpensively and easily using the SARC-F questionnaire.[7] Additionally, for this population, it is important to identify other barriers to treatment initiation, such as life expectancy, and evaluate other associated comorbidities, including the degree of frailty (FRAIL scale)[8] and/or cognitive impairment (Pfeiffer test).[9]

Lifestyle interventions that include a reduced but sufficient energy intake, age-appropriate protein and macro/micronutrient intake, combined with a comprehensive resistance exercise program tailored to individual limitations, can induce weight loss while improving frailty indices.[10] The use of weight loss medications, particularly

GLP-1 RA and tirzepatide, provides an additional stage of treatment.[11,12] Their safety and cardiovascular health benefits have been convincingly demonstrated in older obese patients with type 2 diabetes mellitus. This option should not be denied to obese individuals with other obesity-related comorbidities based solely on age. Moreover, recent evidence suggests that bariatric surgery can be safely performed in selected older individuals as a last treatment option.[13] Risk-benefit considerations should be carefully weighed and disclosed to candidates, taking into account their good presurgical functional status. From a clinical perspective, physicians must balance the potential risks of weight loss in older individuals against the complications of obesity in order to determine the most suitable patient-centered approach.

The objective of this document is to propose an algorithm of recommendations for the management of obesity in the elderly (above the age of 65), based on scientific evidence and the expertise of members from the Diabetes, Obesity, and Nutrition Workgroup of the Spanish Society of Internal Medicine. It is important to note that this document does not serve as a clinical practice guideline or review. For that purpose, you can refer to the guidelines and recommendations provided by different scientific societies.[3]

Methods

The methodological structure of the algorithm comprises two distinct parts. The first part aims to assess certain essential aspects (functional status, sarcopenia, and cognitive status) when considering possible treatment recommendations for elderly patients. This will include the following.

Frailty

Frailty is an emerging global health burden with significant implications for clinical practice and public health. It refers to a state of decreased physiological reserve and increased vulnerability to negative health outcomes. Frail individuals face an increased risk of adverse outcomes such as falls, hospitalization, and mortality.[14] The FRAIL scale assesses five components: Fatigue, Resistance (inability to climb stairs), Ambulation (inability to walk a certain distance), Illnesses, and Loss of weight.[8] This simple questionnaire consists of five self-reported YES/NO items.[8] A patient is considered frail when they score equal to or higher than 3 on the FRAIL scale. Frailty is a significant determinant when determining therapeutic strategies for elderly patients due to its prognostic implications.

Sarcopenia

Sarcopenia refers to the loss of muscle mass and strength that occurs with aging. It is a major cause of disability and frailty among the elderly population. Sarcopenia leads to disability, falls, and increased mortality. Growing evidence has shown that sarcopenic obesity is associated with accelerated functional decline, increased risks of cardiometabolic diseases, and mortality. Therefore, identifying sarcopenic obesity is crucial for clinicians working with the elderly.[15,16]

The SARC-F questionnaire has been developed as a rapid diagnostic test for sarcopenia.[7] Although the screening sensitivity of SARC-F is poor, recent evidence indicates its high specificity, making it an effective tool for selecting subjects who require further testing to confirm a diagnosis of sarcopenia.[17] The SARC-F questionnaire consists of five components: Strength, Assistance with walking, Rise from a chair, Climb stairs, and Falls. Each component is scored from 0 to 2, resulting in a total score ranging from 0 to 10. A score equal to or greater than 4 predicts sarcopenia and poor outcomes.

Cognitive decline

Cognitive decline refers to a range of conditions, from mild cognitive impairment to dementia, which represents a severe decline in abilities that interferes with daily life. Clinicians working with elderly patients require a brief and reliable instrument to detect the presence and determine the degree of cognitive impairment. The Pfeiffer test, a 10-item Short Portable Mental Status Questionnaire (SPMSQ), has been designed, tested, and validated for this purpose.[9] The score ranges are as follows:

- 0—2 errors: Intact intellectual functioning
- 3—4 errors: Mild intellectual impairment
- 5—7 errors: Moderate intellectual impairment
- 8—10 errors: Severe intellectual impairment

Note: Assessing body composition is not essential for the routine clinical management of obesity. Often, devices and equipment for accurately measuring body fat are not readily available.

Results

The second part of the algorithm presents different treatment recommendations for obesity based on the initial assessment of the patient's functional, sarcopenia, and cognitive status. Treatment should be grounded in good clinical care and evidence-based interventions, while also being individualized, multidisciplinary, and focused on realistic goals, weight maintenance, and prevention of weight regain.

Two distinct scenarios are considered:

1 For patients identified with frailty, sarcopenia, or cognitive impairment during the initial assessment, the aim of the recommendations is to prioritize non-pharmacological interventions and preserve quality of life, avoiding restrictive diets [18] (Fig. 1).
2 For patients who maintain a preserved overall status after the initial assessment, recommendations will be stratified based on the severity of obesity as determined by body mass index (BMI, kg/m^2):

2.1. Patients with a BMI between 30–34.9 will be encouraged to adopt a healthy lifestyle, including a balanced eating pattern, appropriate physical exercise, tobacco cessation, and good sleep hygiene.[18] These recommendations are applicable to all subjects, regardless of their BMI.[19]

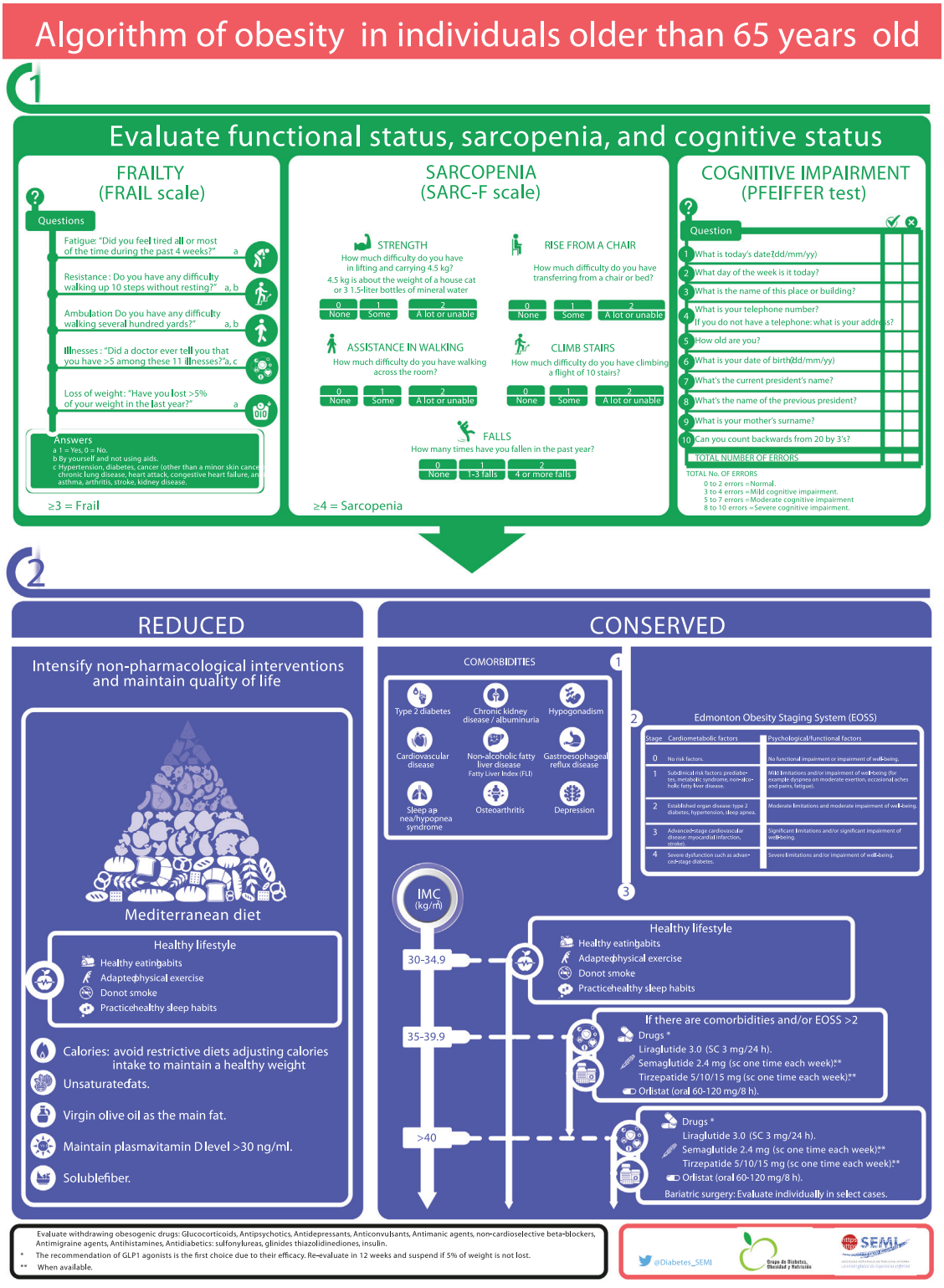

Figure 1 Algorithm of obesity in individuals older than 65 years old.

2.2. For patients with a BMI between 35 and 39.9, accompanied by comorbidity and/or an Edmonton Obesity Staging System (EOSS) score >2 (Fig. 1), pharmacological recommendations will be introduced. Options may include liraglutide 3.0 mg (subcutaneous injection of 3 mg/24 h) (no dose adjustment based on age; limited therapeutic experience in patients ≥75 years), semaglutide 2.4 mg (subcutaneous injection once weekly) (when available; no dose adjustment based on age; limited therapeutic experience in patients ≥75 years), tirzepatide 5/10/15 mg (subcutaneous

injection once weekly) (when available; weight reduction associated with clinically meaningful improvement in body composition across age groups, including those ≥65 years), or orlistat (oral administration of 60—120 mg every 8 h). GLP1RA is recommended as the initial option due to its efficacy. Re-evaluation should be conducted after 12 weeks, and if a weight loss of at least 5% is not achieved, discontinuation should be considered.

2.3. For patients with a BMI over 40, in addition to potential pharmacological treatments, the possibility of bariatric surgery would be evaluated on an individual basis for selected cases.

Discussion

Obesity in the elderly not only has a significant impact on morbidity and mortality but also on quality of life. However, the treatment recommendations for this population remain a subject of research and debate due to the lack of sufficient evidence.

The objective of this document is to propose a set of recommendations for the management of obesity in individuals above the age of 65, based on scientific evidence and the expertise of the members from the Diabetes, Obesity, and Nutrition Workgroup of the Spanish Society of Internal Medicine.

When dealing with possible treatment recommendations for older adults with obesity, it is crucial to assess certain essential aspects, including functional status, sarcopenia, and cognitive status. Additionally, it is important to have a comprehensive understanding of the risks associated with weight loss on muscle and bone health.

Lifestyle interventions, such as following a Mediterranean diet pattern and engaging in physical exercise, particularly strength training, are considered the best weight loss plan for the elderly. However, it should be noted that pharmacotherapies that are approved by the FDA and/or EMA for adults have not been extensively studied in the elderly population. Bariatric surgery may be an option for selected candidates.

It is the responsibility of physicians to recognize obesity as a disease and provide appropriate prevention and treatment measures for obese patients. By addressing obesity, healthcare professionals can contribute to improving the overall health and well-being of their patients.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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