

## Frail Older Adults

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### INTRODUCTION

A geriatric patient is defined as a patient over 60 years of age, with one or more underlying chronic and evolved diseases, is the elderly adult in whom the balance between their needs and the capacity of the environment to satisfy them has been broken, with a high risk of dependency and with physical and cognitive disabilities [1-3]. Geriatrics is the branch that deals with the way medicine ages and diseases of the elderly, with an emphasis on maintaining the autonomy and functional capacity of the elderly, is not identified only by dedication to studying an organ or system It must be through a holistic care model which aims to preserve the function in the community of the elderly, reducing the rate of hospitalization and internment in shelters, nursing homes, etc., improving the quality of life of the patient and family [4]. Other definitions are, a medical syndrome with multiple causes and factors which require its development, characterized by the decrease in strength, resistance and reduced physiological functions that suffer the vulnerability of an individual in the development of functional dependence and / or death [5]. Frailty in an elderly person is a prolonged process of disability, it indicates vulnerability and predisposition to the functional decrease of physiological reserves, reduces homeostasis Frailty in elderly and nutritional status according to the Mini Nutritional Assessment [6]. Frailty is defined according to Linda Fried [7], as the presence of three or more of the following elements identify a fragile individual: unintended weight loss of 4.5 kg in the last year, subjective feeling of exhaustion (feeling unusually tired in the last month), weakness with objective lack of strength (less than 17 kg of hand force), decreased walking speed (less than 0.8 m / sec) and little physical activity. A pre-frailty stage appears when one or two criteria are present, and identifies a group of patients at high risk of progressing to a state of frailty. Rockwood affirms that it is the sum total of diseases which lead the elderly to the progressive loss of their physical capacity [8]. In Mexico, between 2005 and 2050 the population of older adults will increase by around 26 million, although more than 75% of this increase will occur as of 2020. Due to this accelerated growth, the population aged 60 years and over in 2030 will represent one in six (17.1%) and in 2050 more than one in four (27.7%) [9], therefore this phenomenon will increase the diseases associated with age, such as frailty, as we discussed previously, this is considered a geriatric syndrome. The prevalence of frailty in the world varies according to the type of population. In Europe, Asia and North America, it ranges between 4.9 and 27.3%. The prevalence of frailty in Mexico is around 39% [10]. Life expectancy in Mexicans has been increasing in recent decades. From being 70 years in the 1990s, it went to 74 years in

2013 and an increase to 77 years of age is forecast by 2030 [11]. There are different multisystemic pathophysiological processes in the pathogenesis of frailty syndrome, one of the most important is the loss of muscle mass or sarcopenia associated with aging, frailty and sarcopenia are interspersed: the majority of elderly people who are frail present sarcopenia and some elderly people with sarcopenia are also frail [12]. Sarcopenia (age-related decrease in muscle mass) appears to be the main component of the syndrome, and is related to impaired gait speed, decreased handshake, increased falls, and decreased ability to maintain body temperature. It is mainly a consequence of neuroendocrine and immune dysfunction related to aging and environmental factors. Sarcopenia can be diagnosed by associating height in centimeters, body weight, pelvic circumference, hand grip strength, and skin folds [13]. Linda Fried establishes five indicators of the frailty model: 1. Unintentional weight loss greater than 4.5kg or 5% of body weight in the previous year. 2. Self-report of exhaustion. 3. Decrease in grip strength adjusted according to gender and body mass index measured with a dynamometer. 4. Level of physical activity. 5. Slowdown of movement (distance of 4.6KM) [7]. Other symptoms associated with this syndrome are: cognitive impairment, decreased activities of daily living, depression, visual and hearing deficit, urinary incontinence, malnutrition, functional dependence on basic activities of daily life, instrumental activities of daily life, falls, difficulty walking, anorexia, etc [9]. Ensrud et al. They propose a scale, which consists of evaluating 3 criteria: 1. Weight loss regardless of whether it was intentional or not in the last 3 years, 2. Inability to get up from a chair five times without using the arms, 3. Energy level reduced using the question: Do you feel full of energy? Considering a NO, as an answer. If you meet two or three criteria are classified as a frail elderly, these criteria showed similar efficacy to predict falls, fractures, disability and death, both in men and women [14]. Frailty can be a prognostic method, help for decision making. The adoption of invasive, conservative or palliative care not only depends on the prognosis of the patients, but also on their values and care preferences [15]. Care in this patient population represents an unresolved challenge and a challenge for health professionals who can help provide appropriate counseling, select specific

interventions to reduce the risk of adverse outcomes, and the opportunity to optimize management of coexisting conditions that could contribute to or be affected by frailty [16,17]; we must have knowledge about frailty and its application in different chronic medical diseases to be able to individualize its treatment [18].

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