

# STUDY OF SARCOPENIA IN THE CONTEXT OF FRAGILITY SYNDROME IN THE ELDERLY

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**Introduction.** The aging process involves a multitude of aging changes, including sarcopenia, which is a muscle failure caused by muscle quantitative and qualitative changes that accumulates throughout life, is frequently underdiagnosed in the elderly.

**Keywords.** sarcopenia, fragility syndrome, elderly.

**Purpose.** Assessment of the particularities of sarcopenia in the context of frailty in the elderly to identify informative indices of value and elucidate the character.

### Material and methods.

The epidemiological study included 152 patients (74.46±0.57 years) with sarcopenia determined by SARC-F score, fragility syndrome (FS) - Fried criteria. Respondents were examined according to Complex Geriatric Assessment (CGA) - autonomy (Katz, Lawton), gait and balance (Tinetti), cognitive status (MMSE), emotional status (Hamilton), muscle strength (dynamometry).

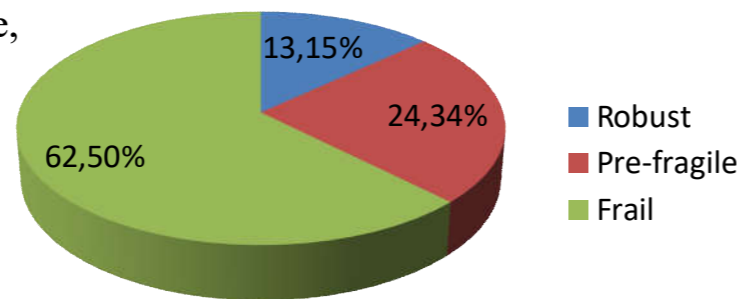


Figure 1. Graphical representation of the frailty syndrome weight in the elderly

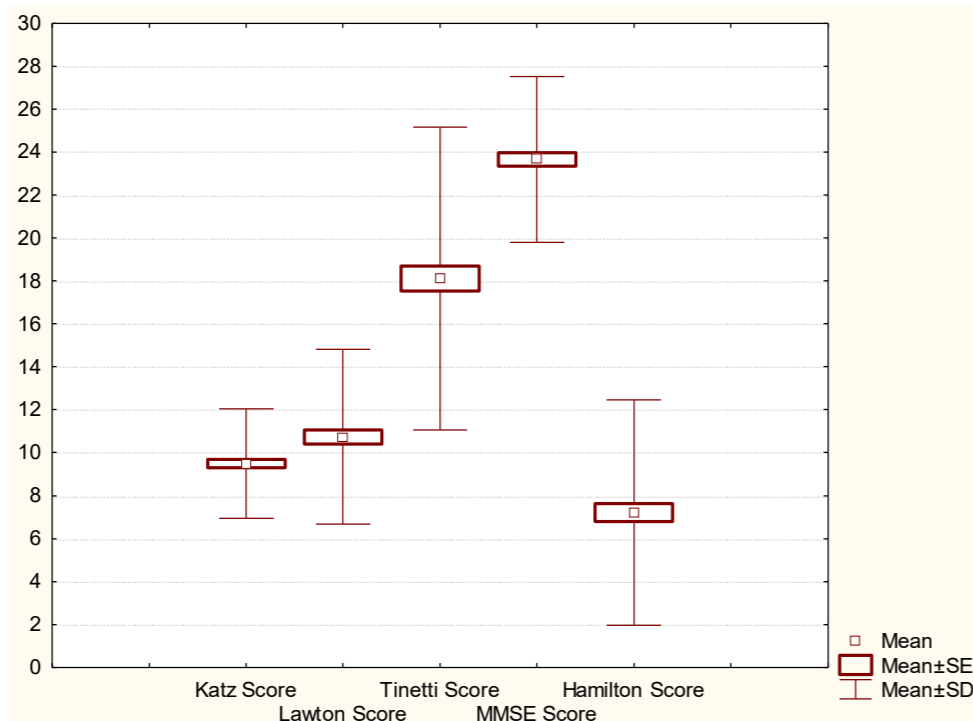


Figure 2. Graphical representation of the mean values of the assessment scores of cognitive and physical status elderly people

**Results.** The elderly included in the study presented sarcopenia, according to the results of screening FS – robust elderly – 13.15%, pre-fragile – 24.34%, fragile – 62.5%, according to CGA – Katz – 9.48±0.20, Lawton – 10.73±0.33, Tinetti – 18.10±0.57, MMSE – 23.65±0.31, Hamilton – 7.20±0.42, dynamometry – 11.88±0.86 kg. Mean SARC-F values were directly correlated with decreased muscle strength (Rr=0.3; p<0.05), low autonomy - Katz (Rr=0.45; p<0.05), Lawton (r=-0.54; p<0.05), Groningen (r=0.36; p<0.05), SPPB (r=-0.27; p<0.05). Correlations were established between mean SARC-F values and Fried criteria: general weakness (Rr=0.31; p<0.05), reduced walking speed (Rr=0.29; p<0.05), weight loss (Rr=0.31; p<0.05).

**Conclusions.** The results of the study reveal the functional status as one of the most affected aspects of sarcopenia on the background of altered physical condition, such as fragility syndrome.

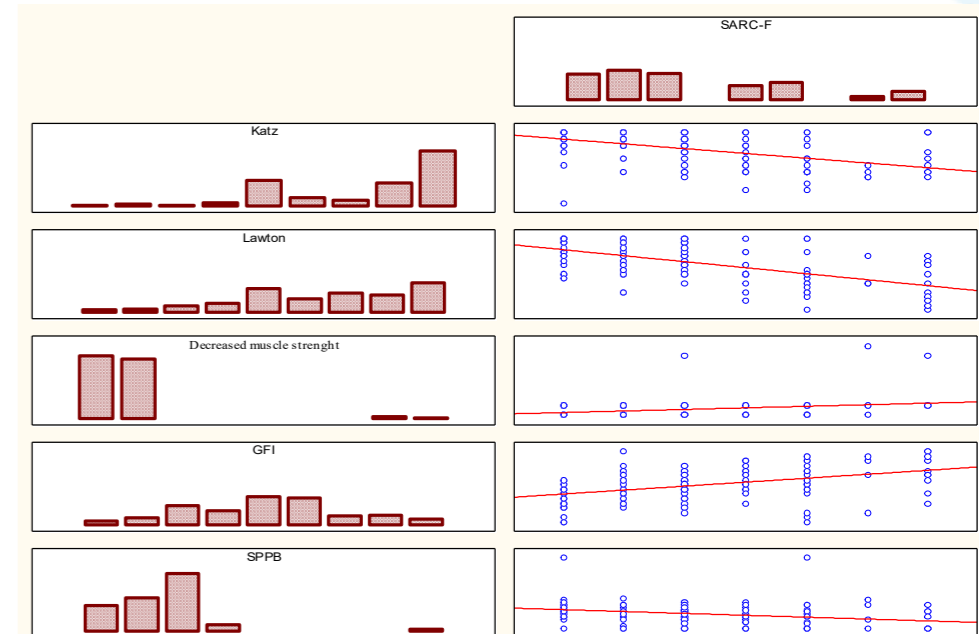


Figure 3. Graphical presentation of the correlation between SARC-F values and functionality indicators of institutionalized elderly people.

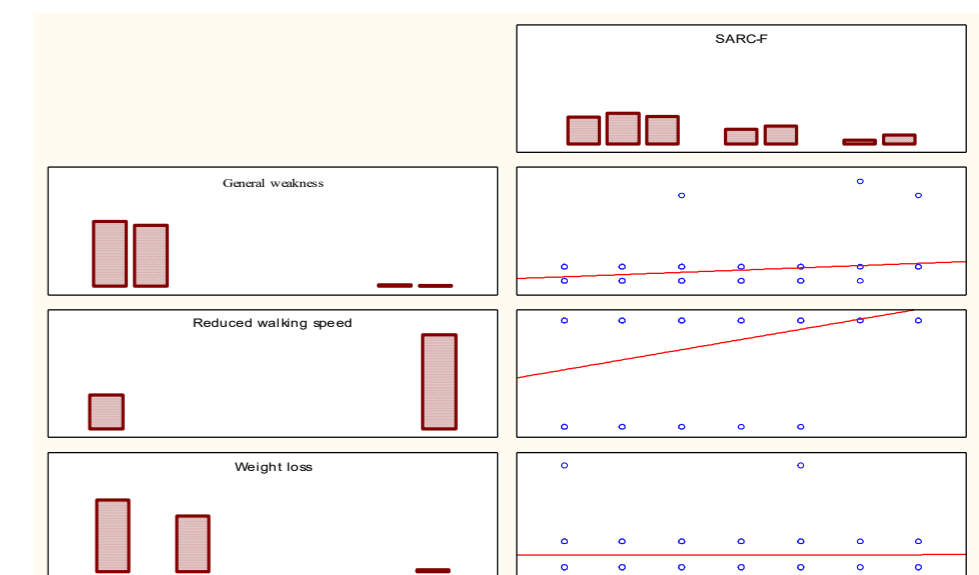


Figure 4. Graphical presentation of the correlation between mean SARC-F values and Fried criteria of institutionalized elderly people