

suggested; and linear regression analysis to determinate the effect of Muscle Quality on quality of life (QoL).

**Results:** Forty-six adults (33% males and 67% females) were evaluated. According to the BMI 54.3% (25/46) of the patients were overweight, obesity grade I was 15.2% (7/46), obesity grade II was 2.1% (1/46), Obesity grade III was 2.1% (1/46). According to the waist circumference 80% (n = 36) of the patients had an increased cardiovascular risk. Subjects were classified as sarcopenic 6.5% and sarcopenic-obese 17.3% with EIM, with BIA was 3.4% lower, Muscle Quality was 'good' in 36%. The amount of EQ-5D as 0.82 (SD = 0.15). The MQ was entered into the linear regression model as a continuous variable, the QoL were significant (p = 0.031). The mean amount of energy, fat, protein, and carbohydrates were 2200.1 kcal/d (SD = 500), 65 gr/d (SD = 25), 71 gr/d (SD = 13) and 233 gr/d (SD = 60), respectively.

Distribution by categories and levels of the EuroQoL.

Category	Level 1	Level 2	Level 3
Mobility	72%	28%	0%
Personal care	91%	89%	0%
Everyday activity	82%	17%	0%
Pain/Upset	54%	42%	4.34%
Anxiety/Depression	65%	35%	0%

**Conclusions:** Electrical impedance myography has a potent facility to measure the fat- mass and muscle quality. The incidence of sarcopenic obesity using EIM and BIA was different between the two methodologies. The risk of sarcopenia should be considered in those with low protein intake. Further research must be done in order to link the muscle quality and functionality to quality of life.

#### References

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#### SUN-PO185

##### PREVALENCE OF OBESITY AND OVERWEIGHT IN CHILDREN OF PRIMARY SCHOOL

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**Rationale:** About 32% of portuguese children are overweighted (1). This study aims to evaluate the prevalence of overweight and obesity in five grade children of primary education.

**Methods:** A cross-sectional study conducted in five grade students of primary school, held in October 2016. Weight and Body Mass Index (BMI) were measured using Omron BF511<sup>®</sup> scale and height with a stadiometer. Data collected was classified according to the growth curves of the World Health Organization (2) and then analysed with Excel<sup>®</sup>.

**Results:** 140 children were evaluated, of whom 51.4% were female (n = 72); with a mean of 10.6 years±0.85. Prevalence of overweight (P85 ≤ BMI < P95) and obesity (BMI ≥ P95) were 15% (n = 21) and 23.6% (n = 33), respectively. Overweight prevalence was higher among males

(16%; n = 11), whereas obesity prevalence was higher in females (26.4%; n = 19).

**Conclusions:** The present study showed a high prevalence of overweight and obesity (38,6%). According to this reality it is essential to carry out more interventions in order to promote healthy eating habits among the school community and to prevent future comorbidities.

#### References

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- Consultas de Vigilância de Saúde Infantil e Juvenil – Atualização das curvas de crescimento, Circular Normativa N.º: 05/DSMIA data: 21/02/06

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#### SUN-PO186

##### NUTRITIONAL ASSESSMENT OF PATIENTS WITH MUCOPOLYSACCHARIDOSIS – A CROSS-SECTIONAL PORTUGUESE STUDY

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**Rationale:** Mucopolysaccharidosis (MPS) patients may be at risk of malnutrition due to disease progression, and/or inadequate food habits. This study aimed to assess nutritional status of MPS patients.

**Methods:** A cross-sectional study including patients from 4 national centres was developed. Anthropometric, body composition, laboratorial data and usual food intake data were collected.

**Results:** 31 patients (5 MPS I; 4 MPS II; 9 MPS III; 3 MPS IV; 9 MPS VI; 1 MPS VII; 17 males), aged between 1.7 and 32.7 years, were included. The lowest weight, height and BMI z-score values were observed in MPS VI, MPS IV and MPS I groups, respectively. Mean phase angle varied from 3.9° to 5.0°, in MPS I and MPS VI groups, respectively. Pre-albumin, retinol binding protein (RBP), creatinine and HDL-cholesterol were low in 59.3%, 75%, 77.4% and 48.4%, of the patients, respectively. Vitamin D insufficiency was present in 38.7% and deficiency in 48.4%. MPS III group showed significantly higher plasma pre-albumin RBP and vitamin A levels and MPS VI group exhibited lower RBP, vitamin A and vitamin E than the other groups. Energy, protein, carbohydrate and fiber intake were lower than requirements in 56.0%, 32.0%, 64.0% and 76.0% of the subjects, respectively. The intake of vitamins and minerals was high in most patients.

**Conclusions:** MPS patients usually show high inability associated with elevated disease severity. In this sample, a substantial number of patients (namely MPS VI and the oldest ones), nutritional status was also found to be impaired. The degenerative character of MPS, as well as an unhealthy pattern of living may lead to nutritional deficits. Nutritional status monitoring and improvement, by correction of deficits, may contribute to a better prognosis and, possibly, to a better quality of health during the reminiscent years of life.

**Disclosure of Interest:** None declared.