

Results: 72 patients with BMI >35 (mean 42.5 Kg/m², SD 4.9) were included, 73.6% were women, mean age 42.3 (SD 8.5, range 22–59). HGS was 23.8 kg/13.4) and TUG 9.0 sec (2,15). Table 1 shows the prevalence of sarcopenic obesity (%) according to different criteria. Cohen's kappa tests were below 0.2 for all the combinations of criteria. No differences were found in either hand grip strength or TUG, no matter the definition of SO used.

Conclusions: Definition of sarcopenia in obese people is challenging and concordance among current criteria is very poor in our patients with morbid obesity. Further research is needed for a consensus definition.

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Disclosure of Interest: None declared.

SUN-PO289

FAT MASS TO FAT-FREE MASS RATIO IN PEOPLE WITH MORBID OBESITY AS A MARKER OF SARCOPENIC OBESITY

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Rationale: A high fat mass to fat-free mass ratio (FM/FFM) has been postulated (1) as a marker of sarcopenic obesity (SO) and linked to worse health outcomes. Diagnosing this condition might be challenging

Methods: Cross-sectional observational study to assess FM/FFM in patients with morbid obesity submitted to our Obesity Clinic. The study was approved by the Ethical Research Committee of the CAULE (approval no 1775/2017) and after written informed consent, patients underwent dual energy X-ray absorptiometry (DXA, Lunar iDXA, GE Healthcare, USA) and bioelectrical impedance analysis (BIA, MC-780A; TANITA, Tokyo, Japan) performed in the same day. Exclusion criteria were weight over 150 kg, difficulty in maintaining an upright position or presence of pacemakers.

FM/FFM was calculated for DXA- and BIA-based measurements and reference values using BIA published by Xiao were used to assess SO, defined by a FM/FFM ratio greater than the 95th percentile of sex, BMI and age. Bland Altman method was used to compare BIA vs DXA and reliability analysis was performed using intraclass correlation coefficient (ICC).

Results: 72 patients with BMI >35 (mean 42.5 Kg/m², SD 4.9) were included, 73.6% were women, mean age 42.3 (SD 8.5, range 22–59). FM by BIA was 56.4 (9.4) kg and by DXA 51.5 (5.9) kg. Table 1 shows median and interquartile range for measurements, ICC and limits of agreement. FM/FFM was higher for females in the range of 40–60 years-old. According to Xiao et al reference values, 4.2% of our patients had a FM/FFM higher than P95

Table 1

	BIA	DXA	ICC (95% confidence interval)	BIA-DXA Bias (Limits of agreement)
FM (kg)	57.7 (48.2–63.0)	59.9 (54.0–67.6)	0.929 (0.886–0.956)	–3.7 (–13.5,+6.2)
FFM (kg)	66.1 (60.5–76.0)	61.2(55.4–71.8)	0.955 (0.927–0.972)	+3.6(–6.4,+13.6)
FM/FFM	0.82 (0.74–0.93)	0.96 (0.76–1.15)	0.755 (0.605–0.848)	–0.23 (–0.54,+0.07)

Conclusions: FM/FFM ratio classified 4.2% of our patients as having sarcopenic obesity. Although BIA infraestimates FM/FFM, a good ICC makes it a suitable measurement vs DXA

Reference

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Disclosure of Interest: None declared.

Paediatrics I

SUN-PO290

BONE MINERAL DENSITY IN CHILDREN SUBMITTED TO DAIRY RESTRICTION

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Rationale: Calcium is one of the responsible nutrients for bone health and can only be obtained exogenously through food. Dairy is the richest source of calcium in our diet. The aim of this study was to determine whether children who do not consume dairy products regularly show adequate bone mineral density.

Methods: Anthropometry (weight, height and abdominal circumference) and body composition (DEXA) children aged 3 to 11 years regularly restricting milk intake were evaluated. A questionnaire of habits and feeding frequency was also applied.

Results: Seventeen children were included, with a mean age of 6.7 years old. Four children were taking vitamin D supplementation; none was taking calcium. All children showed adequate height Z Score (–2 to +1). Sixteen individuals were breastfed in the past with a mean duration of exclusive breastfeeding of 5.6 months. Mean total time of breastfeeding was 25.3 months.

Thirteen subjects do never consume dairy or do it less than once a month. The remainder consumed it 1 to 3 times a month. Two children reported drink fortified vegetable beverages on a daily basis, 7 drink once a week and the rest do it even less often.

About the consumption of dark green vegetables, 2 kids consume 4 to 5 servings per day, 7 consume 2 to 3 servings per day and 3 one per day. The rest ingest once a week.

The parents of 6 children find that their descendants consume few dark green vegetables and seaweed. Sixteen consume added sugar food less than once a month.

Average BMD Z-Score was –1.05, with 6 children presenting BMD Z-Score adequate (–1 to +1). The remaining 6 showed values lower than –1.

Conclusions: Children submitted to dairy restriction do not seem to accomplish calcium requirements. This may justify that low bone mineral density was present in half of the sample.

The intake of 2 servings of calcium-fortified vegetable drinks per day and the increase the intake of dark green vegetables is, thus, suggested.

Disclosure of Interest: None declared.