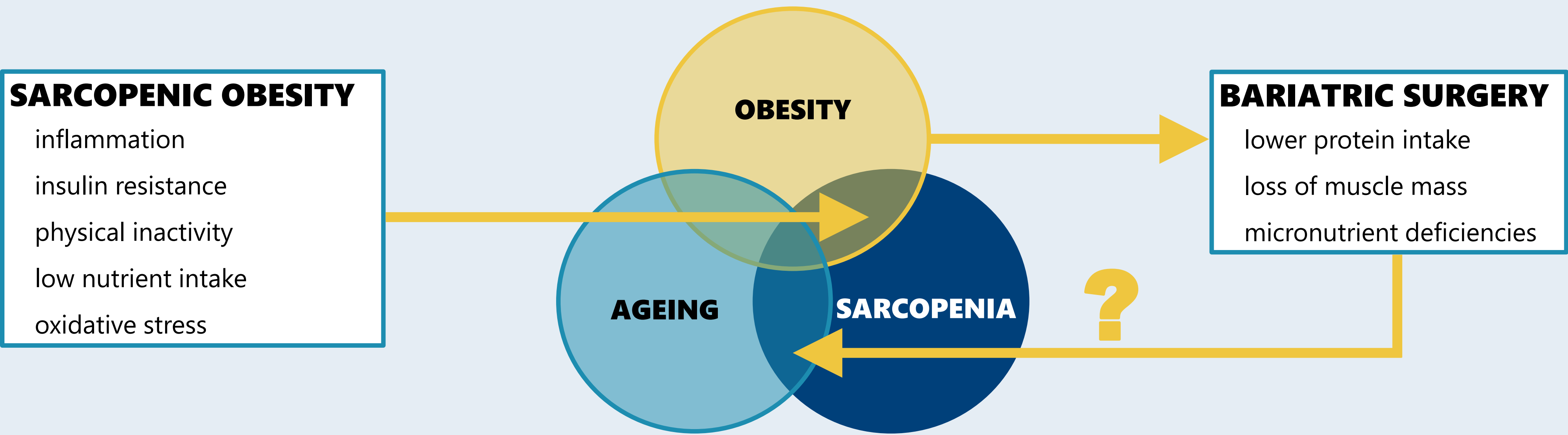


Protein intake and muscle mass in older adults with earlier bariatric surgery: preliminary findings

Eksteen G^{1*}, Steenackers N¹, Vangoitsenhoven R^{1,2}, Mertens A^{1,2}, Vanuytsel T³, Van der Schueren B^{1,2}, Matthys C^{1,2}

¹ Clinical and Experimental Endocrinology, KU Leuven, Belgium; ² Department of Endocrinology, University Hospitals Leuven, Belgium; ³ Translational Research Center for Gastrointestinal Disorders, KU Leuven, Belgium. [*gabrieljohannes.eksteen@kuleuven.be](mailto:gabrieljohannes.eksteen@kuleuven.be)

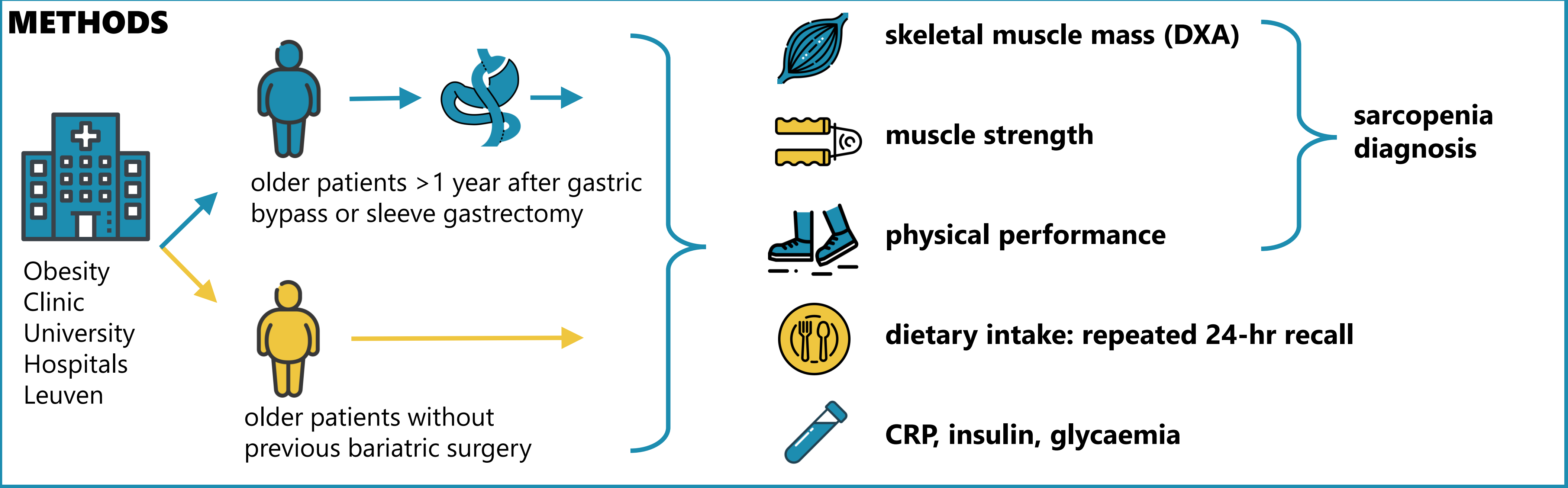
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RESEARCH QUESTION

Are older patients with earlier bariatric surgery at greater risk of sarcopenia than age-matched control patients?

METHODS



RESULTS

The bariatric surgery group was 11 years (IQR 7 – 17) post surgery, with median 1-year weight loss of 30%.

EWGSOP1-defined sarcopenia[†] was present in **4** participants in each group, but only in **1** per group using EWGSOP2 - *which does not account for obesity*.

57% post-bariatric surgery and **58%** of control participants had low muscle mass corrected for adiposity.[†]

Protein intake was below 1.1 kg/ideal bodyweight for **57%** post-bariatric surgery and **63%** of control participants.

62% bariatric surgery participants ingested <60g protein/day.[‡]

CONCLUSION

Neither muscle mass nor protein intake was lower in post-bariatric participants compared to non-surgical controls.

Most patients in both groups had low muscle mass, predisposing them to future sarcopenia.

Low protein intake long-term after surgery should be addressed.

	Bariatric surgery	Nonsurgical
<i>n</i> (<i>n</i> male)	21 (6)	19 (5)
Age (years)	69 (68 – 71)	71 (69 – 72.5)
BMI (kg/m ²)	33.2 (27.4 – 38.0)	38.0 (34.50 – 39.95) [#]
Bodyfat (%)	42.0 (38.7 – 47.0)	48.3 (41.2 – 50.6)
ALM (kg/m ²)	7.1 (5.7 – 8.0)	7.4 (6.7 – 7.7)
Low leg / arm strength [†]	29%	42%
Low physical performance [†]	24%	37%
Energy intake (kcal)	1434 (1177 – 1504)	1461 (1183 – 1869)
Protein intake (g/day)	63.9 (50.8 – 74.0)	59.8 (54.2 – 85.2)
HOMA-IR	3.78 (2.15 – 5.50)	4.5 (2.87 – 7.25) [#]
CRP (mg/L)	0.90 (0.60 – 1.30)	1.60 (1.15 – 3.35) [*]

^{*}p <0.05; [#] p = 0.07, t-test or Wilcoxon for non-parametric data
[†] Sarcopenia, low strength and physical performance were assessed by European Working Group on Sarcopenia in Older People criteria 2010 & 2019 (EWGSOP1 & EWGSOP2 respectively);
[‡] Protein recommendations after bariatric surgery are 60g or 1.1g/kg IBW.
ALM Appendicular lean mass/height;
HOMA-IR Homeostatic Model Assessment for Insulin Resistance
Values are reported as medians (interquartile ranges)

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AGePOP