Presidenti: P. Gentileschi, A. Giovanelli,
M.G. Carbonelli, F. Micanti

21-22 Dicembre 2020
XXVIII Congresso
Nazionale
SICOB ONLINE

Il rapporto duale fra Obesità e SARS-CoV2: Fisiopatologia, clinica e mortalità.

Prof. Ferruccio Santini
Dr.ssa Susanna Bechi

Coronavirus (COVID-19)

Guidance

[Withdrawn] Guidance on social distancing for everyone in the UK

Updated 30 March 2020

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

"Adults with **certain underlying medical conditions** are at increased risk for severe illness from the virus that causes COVID-19"

Under 70:

- Being seriously overweight (a body mass index (BMI) of 40 or above)

- COPD
- Chronic kidney disease
- Diabetes
- Chronic heart disease, such as heart failure

Adult of any age with:

- Obesity (body mass index [BMI] of 30 kg/m^2 or higher but < 40 kg/m^2)
- Severe Obesity (BMI ≥ 40 kg/m^2)

- COPD
- Chronic kidney disease
- Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- Type 2 Diabetes Mellitus
- Cancer

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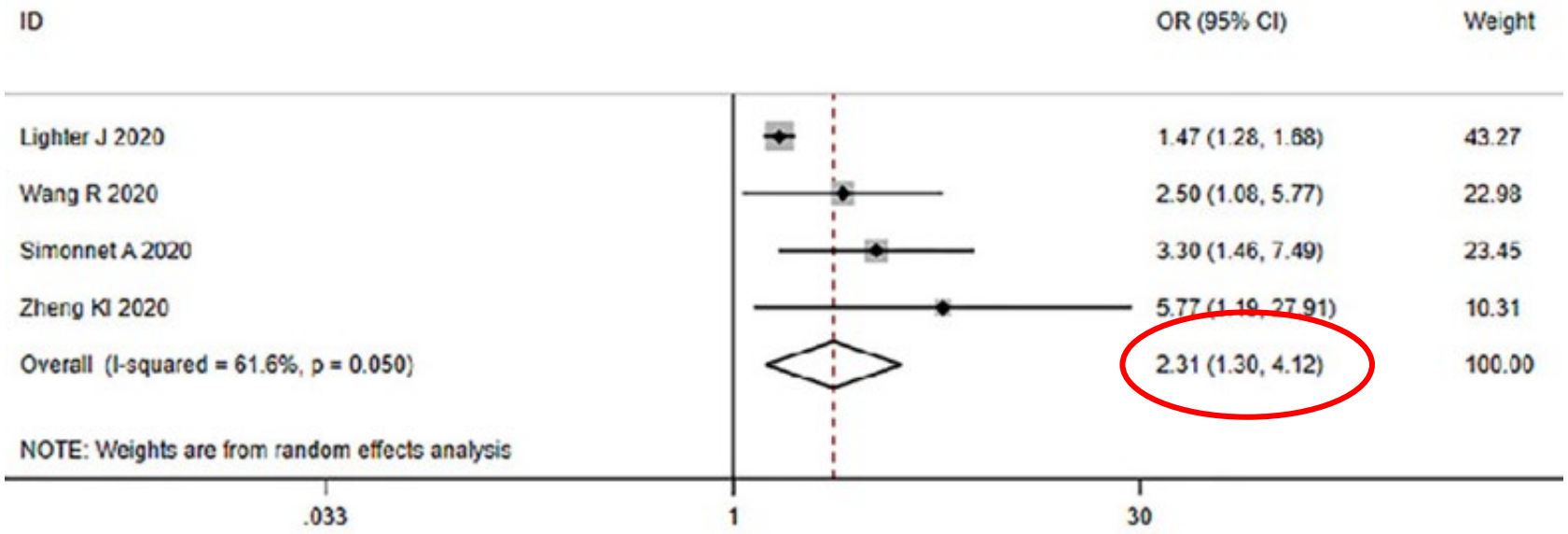
REVIEW | Free Access

Obesity aggravates COVID-19: A systematic review and meta-analysis

Jun Yang PhD, MD, Jiahui Hu PhD, Chunyan Zhu PhD

First published: 30 June 2020 | https://doi.org/10.1002/jmv.26237 | Citations: 9

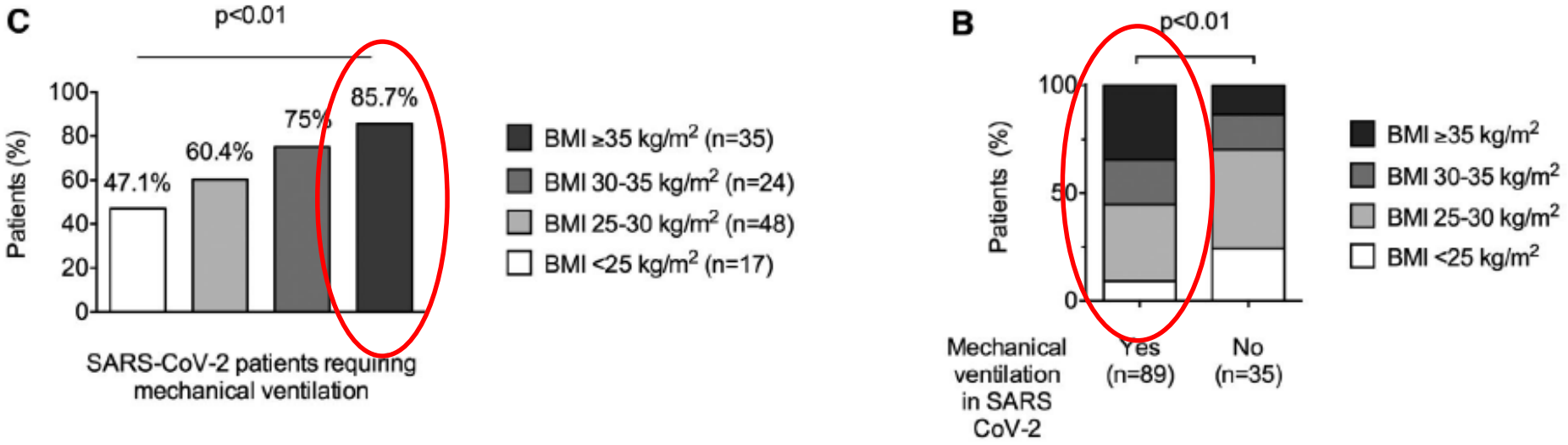


Comorbidities and the risk of severe or fatal outcomes associated with coronavirus disease 2019: A systematic review and meta-analysis

Yue Zhou[a], Qing Yang[b], Jingwei Chi[a], Bingzi Dong[a], Wenshan Lv[a], Liyan Shen[a,*], Yangang Wang[a,*]

Chronic respiratory disease, OR 3.56 (95% CI 2.87–4.41)
Hypertension, OR 3.17 (95% CI 2.46–4.08)
Cardiovascular disease, OR 3.13 (95% CI 2.65–3.70)
Kidney disease, OR 3.02 (95% CI 2.23–4.08)
Cerebrovascular disease, OR 2.74 (95% CI 1.59–4.74)
Malignancy, OR 2.73 (95% CI 1.73–4.21)
Diabetes, OR 2.63 (95% CI 2.08–3.33)
Obesity, OR 1.72 (95% CI 1.04–2.85)

- Fattore di rischio con maggior prevalenza: **Italia 10 % - USA 40 %**
- Si associa a tutti gli altri fattori di rischio

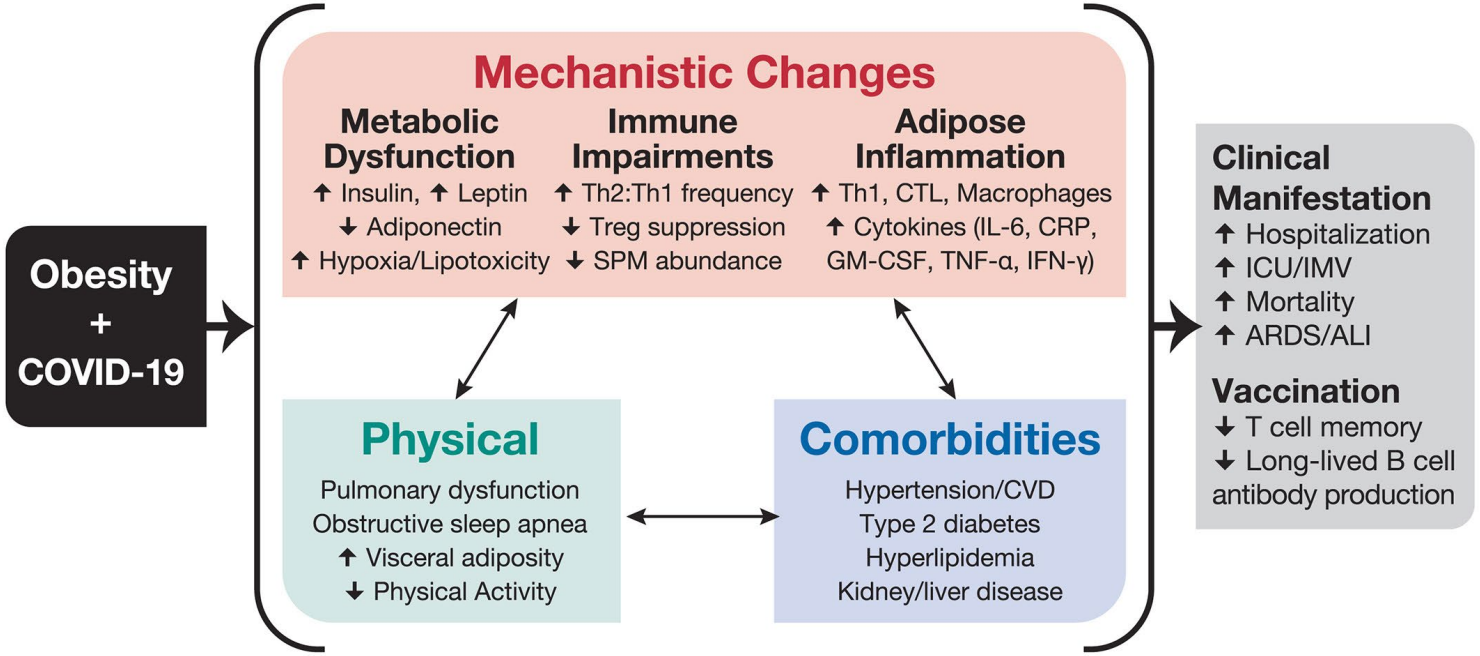


High Prevalence of Obesity in Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) Requiring Invasive Mechanical Ventilation. Simonnet et Al., Obesity 2020

Age ≥ 60 years	N (%)	Admission to acute (vs discharge from ED)	P-value	N (%)	ICU Admission (vs discharge from ED)	P-value
BMI 30-34	141 (19%)	0.9 (95% CI 0.6-1.2)	0.39	57 (22%)	1.1 (95% CI 0.8-1.7)	0.57
BMI ≥ 35	99 (14%)	0.9 (95% CI 0.6-1.3)	0.59	50 (19%)	1.5 (95% CI 0.9-2.3)	0.10
Age < 60 years						
BMI 30-34	173 (29%)	2.0 (95% 1.6-2.6)	<.0001	39 (23%)	1.8 (95% CI 1.2-2.7)	0.006
BMI ≥ 35	134 (22%)	2.2 (95% CI 1.7-2.9)	<.0001	56 (33%)	3.6 (95% CI 2.5-5.3)	<.0001

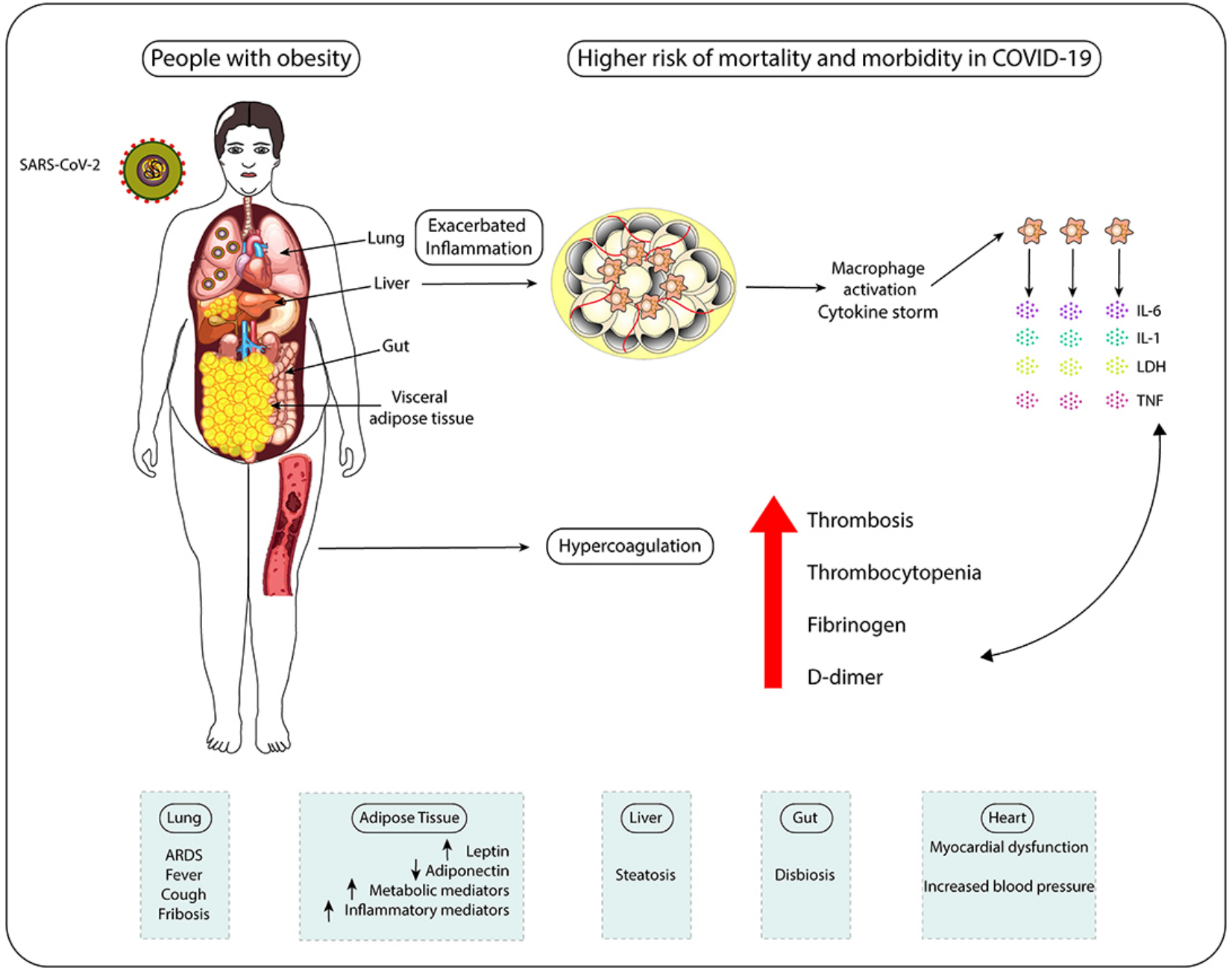
Obesity in patients younger than 60 years is a risk factor for Covid-19 hospital admission. Lighter et Al., Clin Infect Dis, 2020

Fisiopatologia



Individuals with obesity and COVID-19: A global perspective on the epidemiology and biological relationships. Popkin et Al., Obesity Review, 2020.

1) Danno d'organo legato all'obesità
2) Incremento dell'espressione enzima Ace
3) Iperattività dell'infiammazione e storm citochinico
4) Stato pro-coagulativo del soggetto obeso
5) Incremento pressione intraddominale e diminuzione espansione emitorace
6) Cause meccaniche: difficoltà di intubazione e pronazione



Hypercoagulopathy and Adipose Tissue Exacerbated Inflammation May Explain Higher Mortality in COVID-19 Patients With Obesity. Gabriel Pasquarelli-do-Nascimento et Al., Frontiers in Endocrinology, 2020.