Surgery Works!

Bariatric Surgery Improves NASH Cirrhosis

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NC Society of Gastroenterology Annual Meeting
February 18, 2023

Surgery works!

1. **Surgery leads to weight loss!**
2. Surgery is safe!
3. Surgery reverses fibrosis and improves other comorbidities!

“Bariatric surgery is the most effective and durable approach to obesity management”

AGA Clinical Practice Update on Bariatric Surgery in Cirrhosis (2021)

Obesity in Cirrhosis

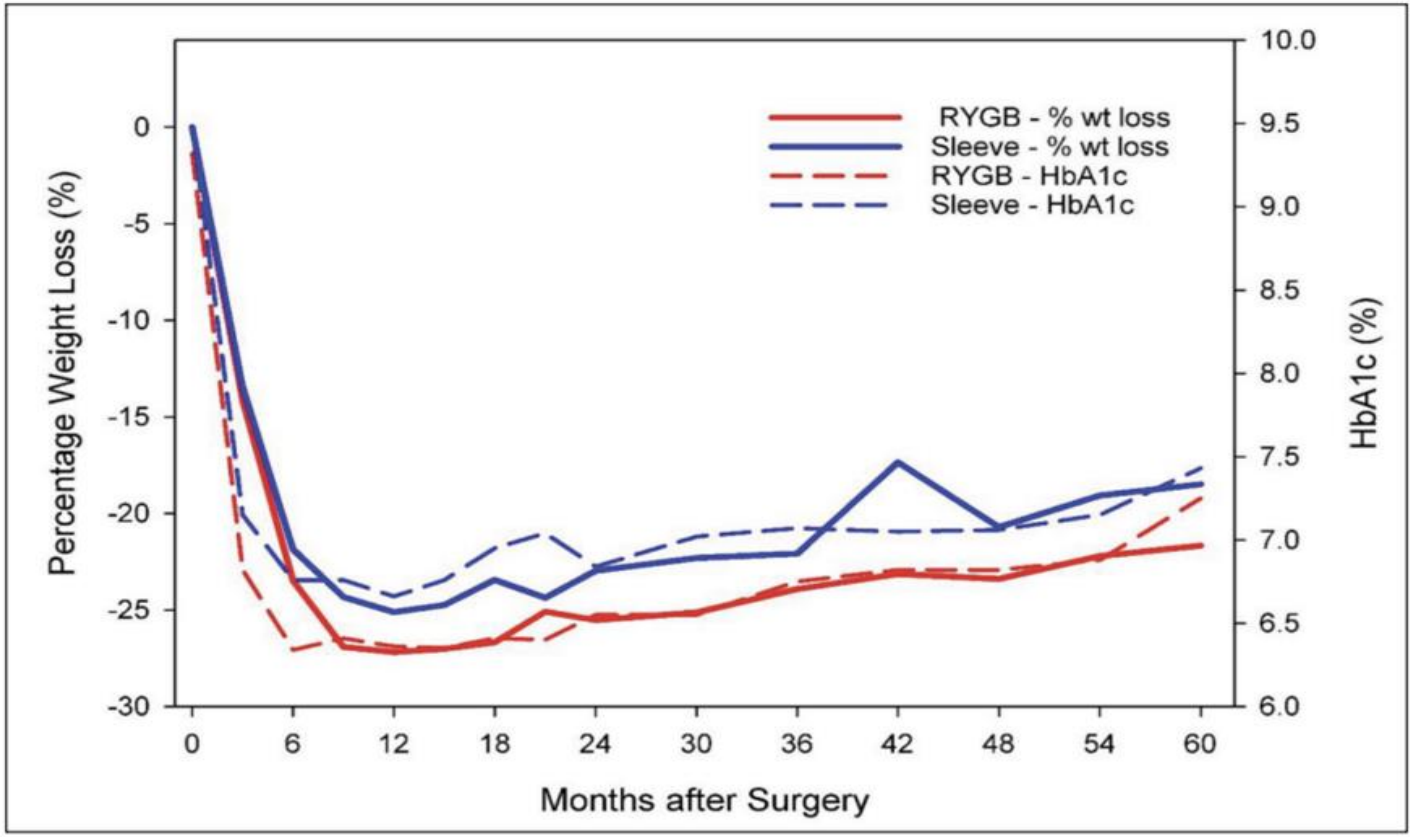
- Decompensation rates of 14%, 31%, and **43%** in normal weight, overweight, and **obese** cirrhotic patients, respectively

- Increased rates of HCC, portal vein thrombosis and liver failure in acute in chronic liver disease

- Increased transplant wait list mortality

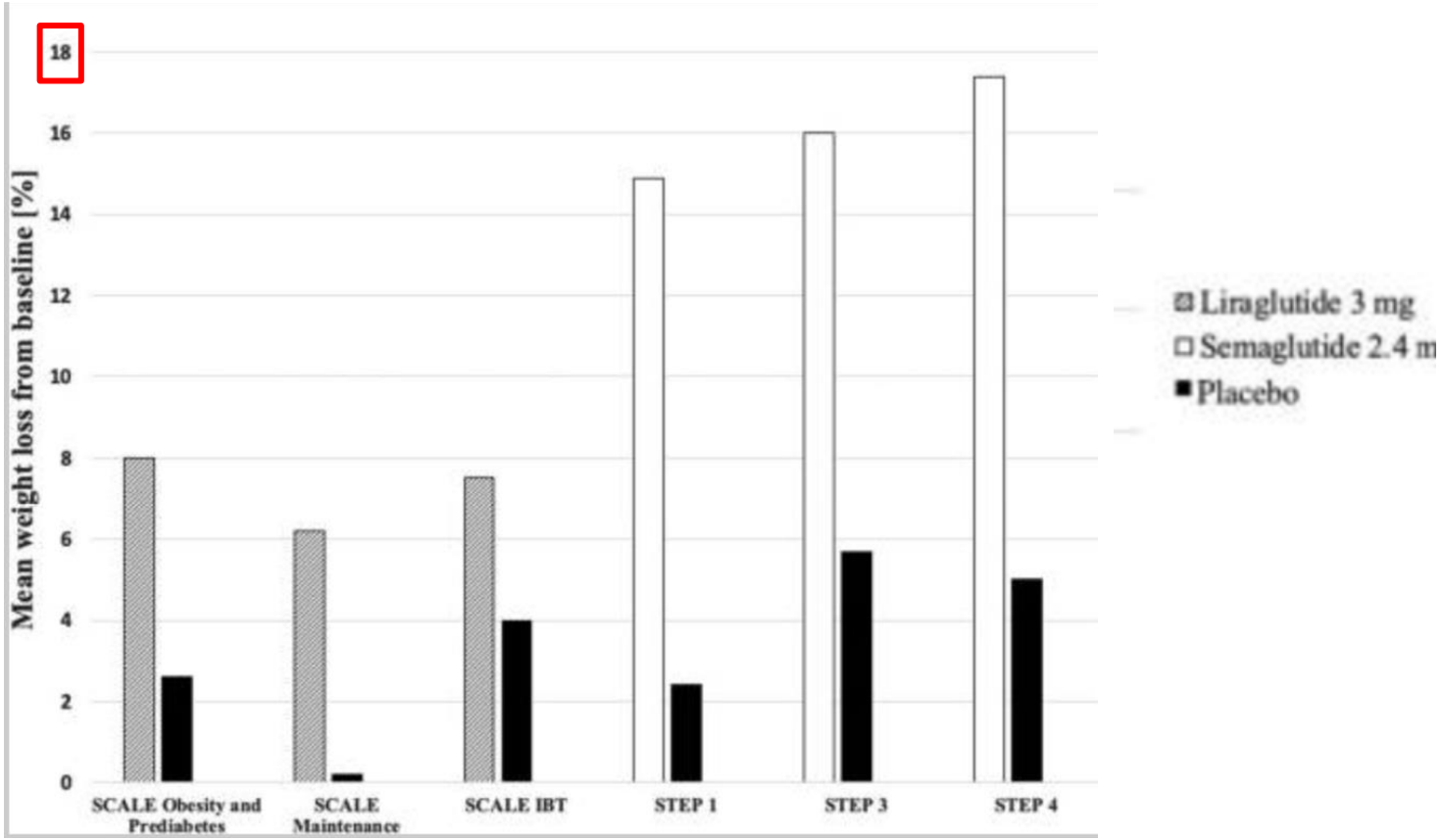
Berzigotti et al. *Hepatology* 2011
Ayala et al. *BMC Gastroenterol* 2012
Schlansky et al. *Transplantation* 2016

Surgery leads to weight loss!



Zhou, K., M.D.et al. *Endocrine Practice.* 2019

We don't know if medications work long-term



Jensterle M et al.Adv Ther. 2022

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Surgery is safe!

- Increased intraoperative mortality with FIB-4 > 2.67
  - **Our patient → FIB-4 = 1.80**

- Preoperative assessment of portal hypertension

- **No apparent excessive mortality** with elective surgeries in patients specifically with NASH cirrhosis

Zelber-Sagi et al. *Anesth Analg* 2022
Macaron et al. *Clin Gastroenterol Hepatol* 2012

Contraindication for Elective Procedures in Patients with Liver Disease
Acute liver failure
Acute renal failure
Acute viral Hepatitis
Alcoholic Hepatitis
Cardiomyopathy
Hypoxemia
Severe coagulopathy (despite treatment)

Kholili et al. *The Indonesian Journal of Gastroenterology, Hepatology and Digestive Endoscopy* 2016.

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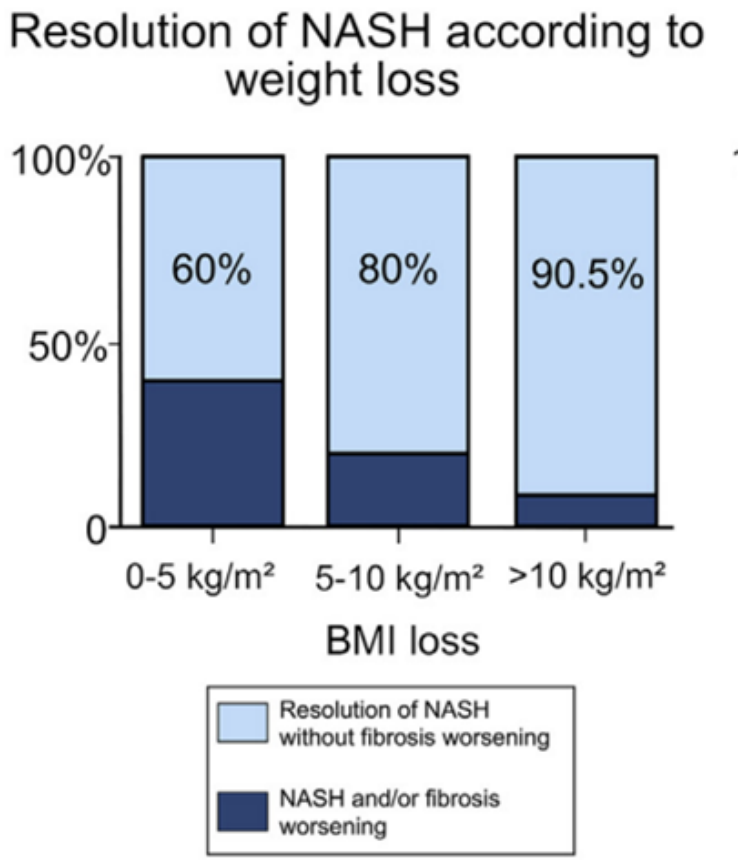
Bariatric surgery improves fibrosis!

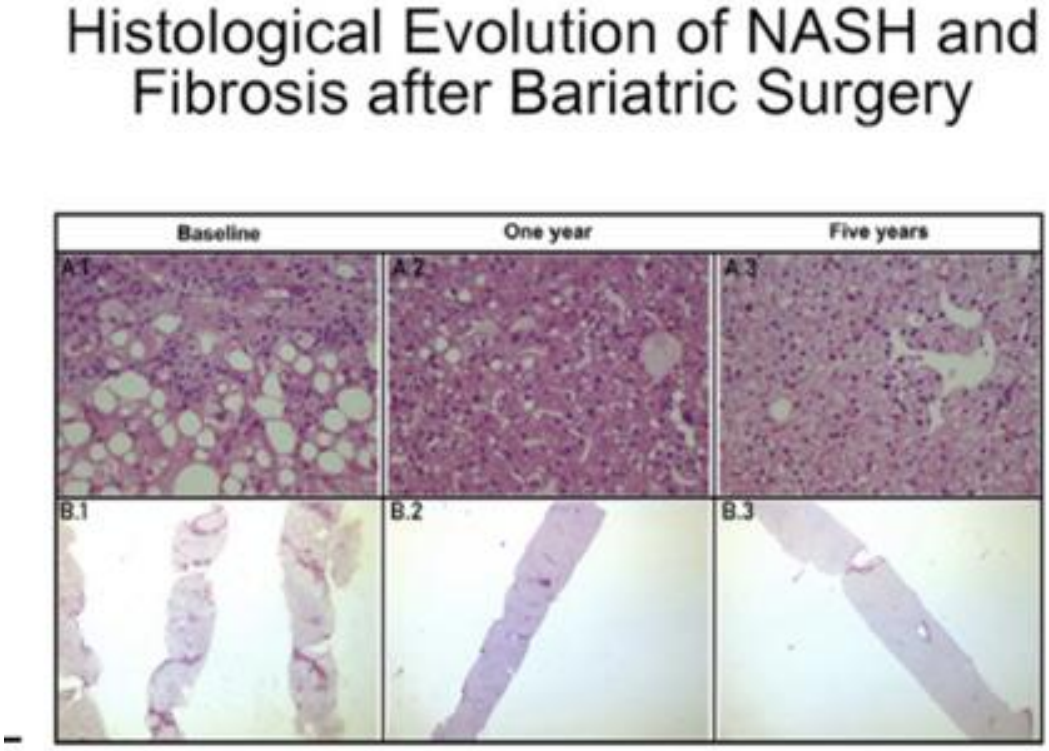
- Weight loss > 10% is associated with **decreased fibrosis!**
- Fibrosis regression may reduce risk for complications of chronic liver disease, including HCC and mortality.

Patton H, et al. *Clin Gastroenterol Hepatol.* 2021
Musso G et al. *Diabetologia* 2012;55:885–904.

More weight loss = Less fibrosis !



Weight loss = Improved histology!



PRESS RELEASE

Gastric bypass surgery leads to long-term diabetes remission

Washington, DC | December 03, 2020

More than half of adults with type 2 diabetes had long-term remission following gastric bypass surgery, according to a new study published in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism.*

Purnell et al. *The Journal of Clinical Endocrinology & Metabolism*, 2021

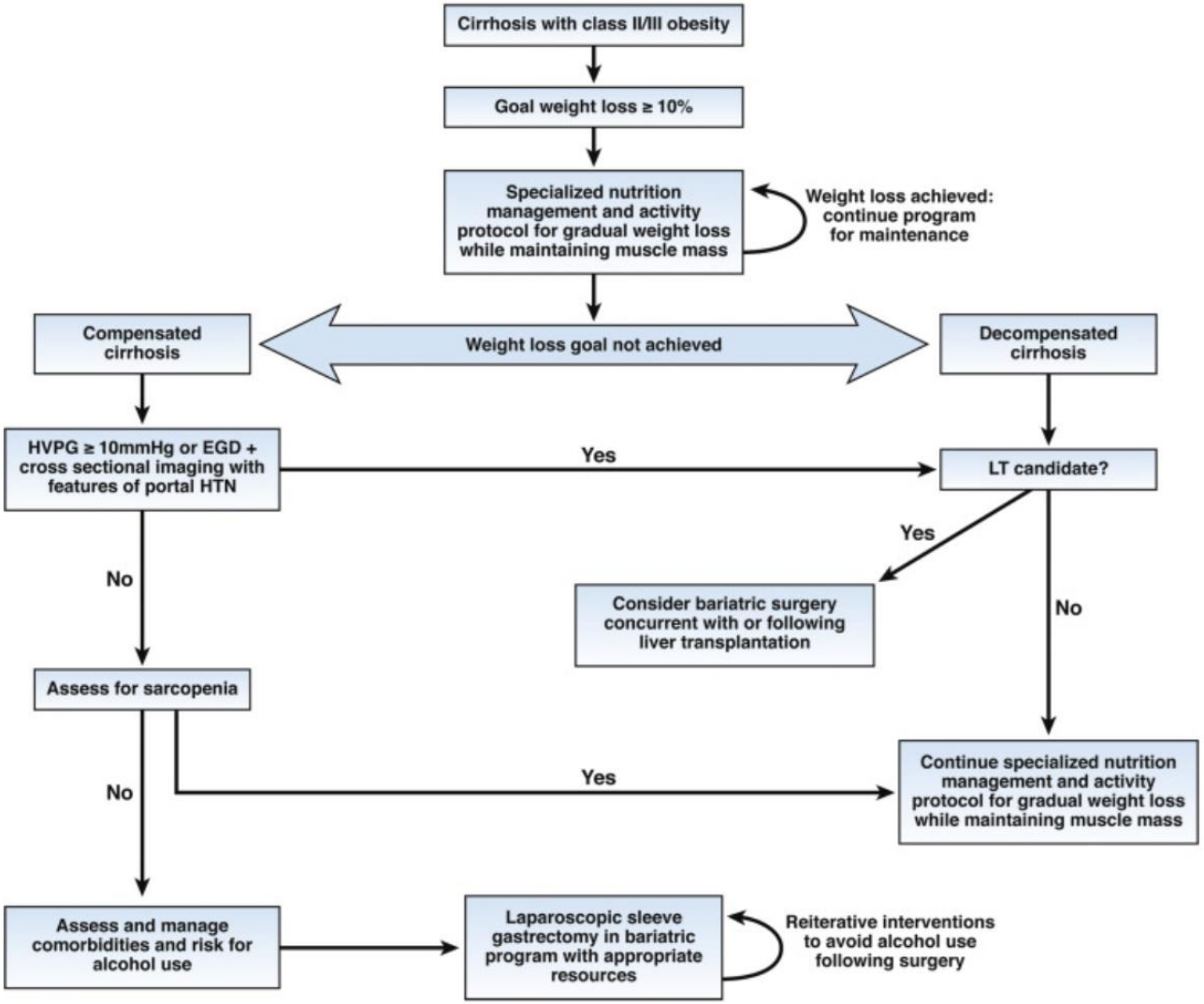
Bariatric surgery = Diabetes remission!

Diabetes Status By Procedure	Baseline		1 Year		2 Year		3 Year		4 Year		5 Year		7 Year	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
RYGB														
Prevalence	645/1667	38.7%	236/1415	16.7%	191/1296	14.7%	211/1326	15.9%	232/1345	17.2%	179/1350	13.3%	149/928	16.1%
Incidence	NA	NA	6/866	0.7%	1/785	0.1%	4/811	0.5%	4/810	0.5%	3/799	0.4%	1/567	0.2%
Complete remission	NA	NA	258/549	47.0%	261/509	51.3%	249/508	49.0%	239/525	45.5%	236/539	43.8%	159/346	46.0%
Partial remission	NA	NA	62/549	11.3%	58/509	11.4%	52/508	10.2%	58/525	11.0%	65/539	12.1%	39/346	11.3%
Total remission	NA	NA	320/549	58.3%	319/509	62.7%	301/508	59.3%	297/525	56.6%	301/539	55.8%	198/346	57.2%

Purnell et al. *The Journal of Clinical Endocrinology & Metabolism*, 2021

AGA Agrees!

“Bariatric surgery should be considered in selected patients with compensated cirrhosis in an effort to reduce risk for hepatocellular carcinoma and improve survival.”



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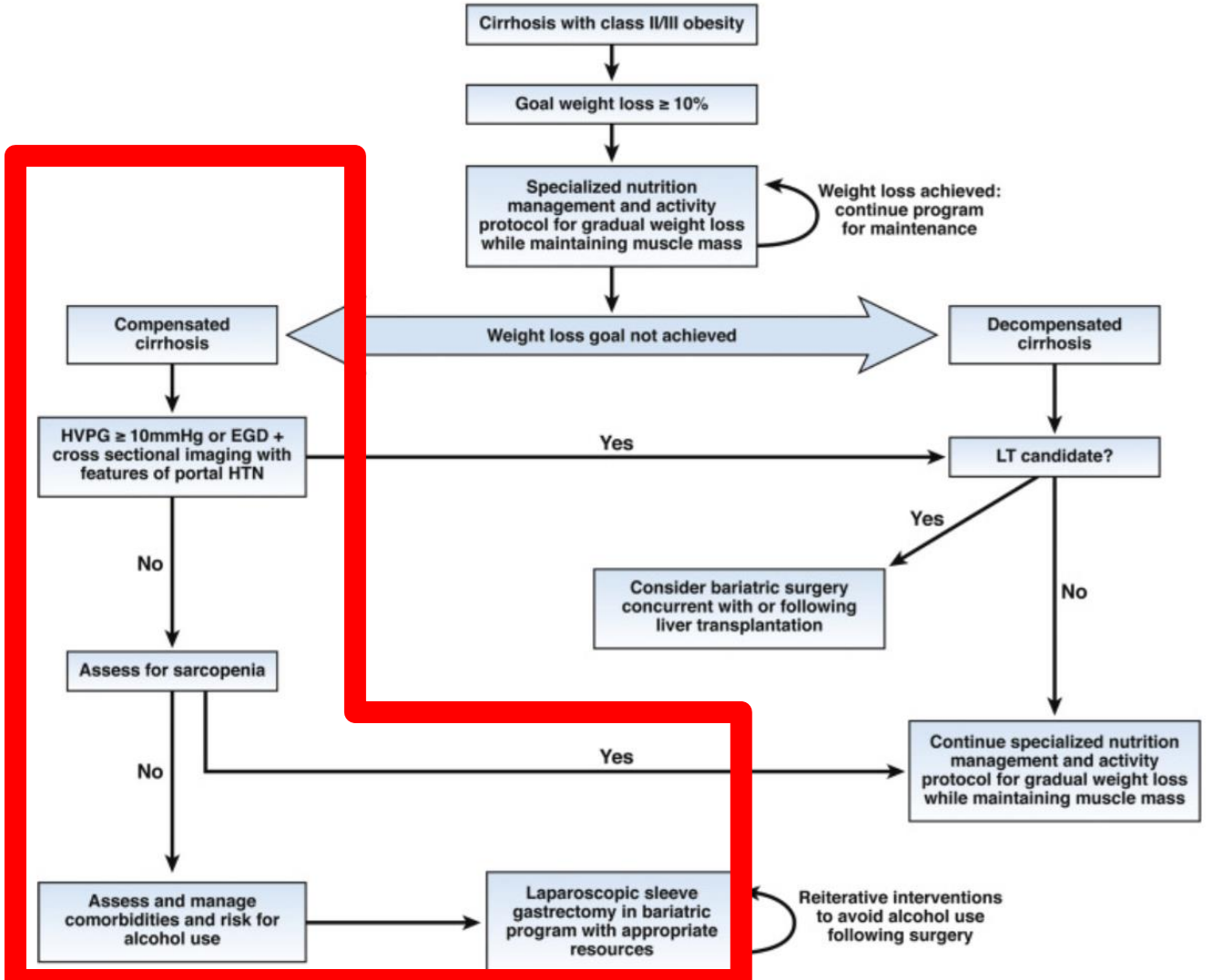

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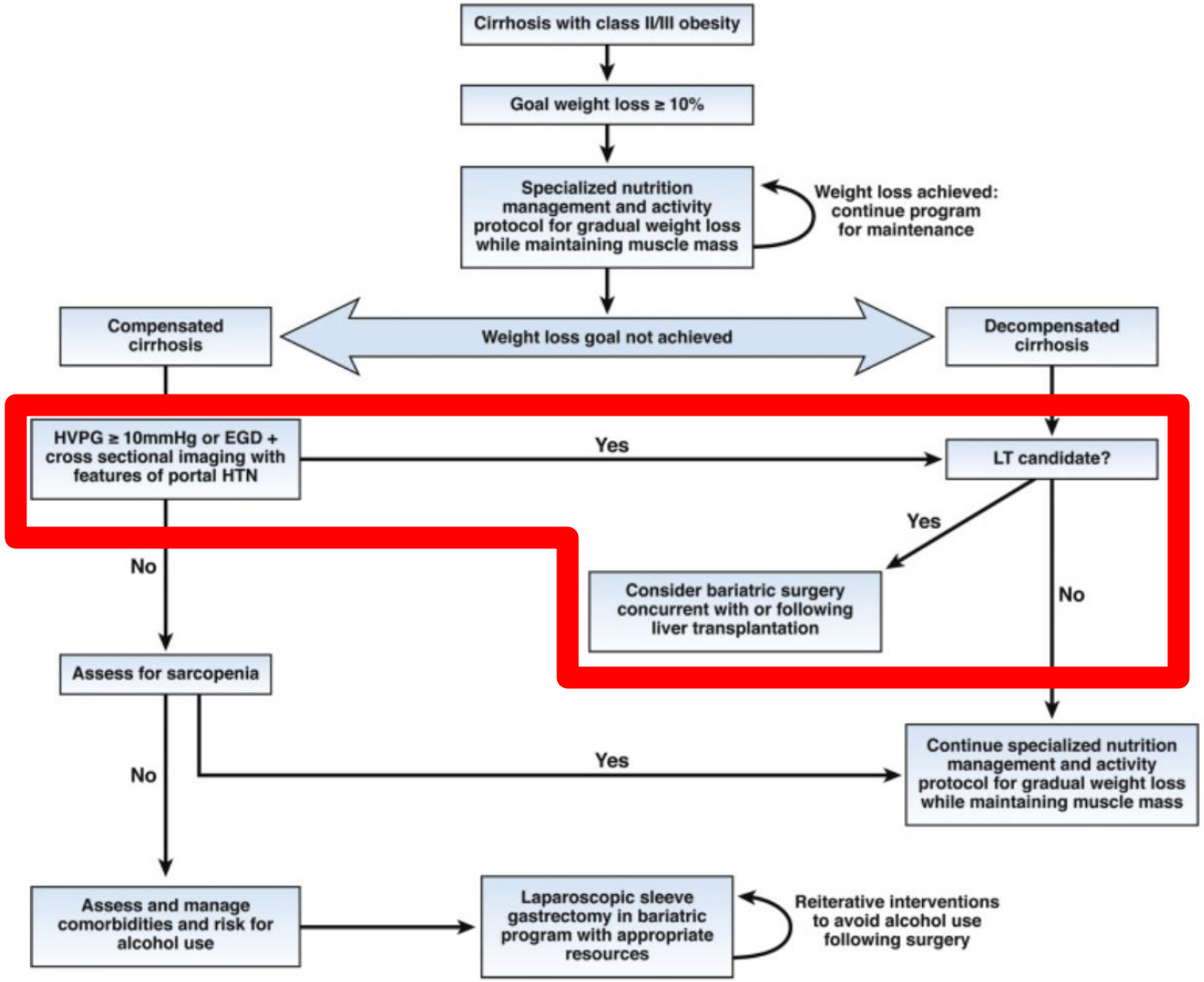

Bottom line: This patient should have surgery!

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