Surgical Outcomes of Liver Transplantation in Bariatric Surgery Patients with Acute Liver Failure: A Case Series from the United Arab Emirates

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Background

- While bariatric surgery (BS) is considered safe, severe complications such as acute liver failure (ALF) can occur.
- Although ALF after BS is rare, might require liver transplantation (LT). Unfortunately, limited data is available reporting LT in cases of post-bariatric surgery-induced liver failure.
- Due to the paucity of data, the objective of this study was to evaluate the postoperative outcomes of patients who underwent (LT) following ALF post-bariatric surgery.

Materials and Methods

- We conducted a retrospective study from June 2016 to November 2023
- Patients with documented ALF following BS, requiring liver transplantation for survival, were included in the study.
- Demographics, preoperative, intraoperative and post operative outcomes were analyzed.

Results

- 4 patients were included, 3 patients with previous one anastomosis gastric bypass **(OAGB)** and 1 patient with Roux-en-Y gastric bypass **(Roux-en-Y).**
- The median time between bariatric surgery and the **onset of ALF was 19.5 months**
- **1** patient's bariatric surgery was **reversed** after transplant, overall **survival** rate at **12** months was **100%**
- While **75% of patients showed significant improvement** post-transplantation, **one case of graft failure led to mortality at 18 months post reversal**

Demographics at time of liver failure	
Number of patients	4
Sex (Female, %)	75%
Age, years (mean, SD)	45 ± 19.80
BMI (mean, SD)	28.46 ± 4.36
Initial surgery	
Roux-en-Y (N,%)	1 (25%)
OAGB (N,%)	3 (75%)

Post bariatric surgery complications	
Ascites (N,%)	4(100%)
Encephalopathy (N,%)	4(100%)
Parenteral nutrition N,%)	2(50%)
Kidney failure (N,%)	2(50%)
NASH (N,%)	4(100%)

Conclusions

- Our results highlight the **rare occurrence of ALF** post-bariatric surgery, **requiring liver transplant** for survival
- **Timely detection and intervention** is crucial in bariatric patients to prevent the progress of liver failure to the point of liver transplant
- **Reversal/ limb length adjustment** should be **considered early** in post bariatric surgery patients showing **signs of malnutrition and liver failure**
- **Further prospective studies** are warranted to identify patients at risk and optimization post transplantation.



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