Considerations For Transplant Risk Assessment In The Setting of Co-occurring Alcohol Use Disorder and Eating Disorder

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INTRODUCTION

- Rates of alcohol use disorder amongst women have increased markedly since the start of the COVID-19 Pandemic with some studies showing as much as a **41% increase** in heavy drinking days (1), leading to an alarming increase in young women presenting with end-organ damage requiring transplantation.
- Among women with alcohol use disorder, there is a high degree of comorbidity with eating disorders (ED) with studies suggesting rates of co-occurring disease as high as **23-50%** (2).
- There is little data on the assessment of transplant recipients who have co-occurring ED and AUD.

OBJECTIVES

- To understand the ways in which co-occurring ED and AUD may impact pre-transplant risk assessment
- To describe the unique treatment considerations in patients with co-occurring ED and AUD

CASE REPORT

- Ms X is a 34-year-old woman with no formal psychiatric history presented to NYU Langone Hospital's Manhattan campus in **acute hepatic failure** (MELD Score 34) in the context of escalating alcohol use over the course of the COVID-19 Pandemic.
- **BMI < 16** at lowest weight, with B12 deficiency, anemia, hyponatremia, and hyperbilirubinemia.
- X did not respond to multiple medical therapies, so evaluation for liver transplantation was initiated, and Psychiatry was consulted to evaluate psychosocial risk for transplant.
- Implementing the Stanford Integrated Psychosocial Assessment for Transplant (SIPAT), X was found to be a **high-risk candidate** (SIPAT score of 81).

Outcomes:

- The patient was **declined for listing** and medically stabilized. She was declined by all inpatient substance use programs given the extent of her ED and rejected recommendations for targeted ED treatment. She was ultimately discharged to an intensive outpatient program for AUD.

PRE-TRANSPLANT ASSESSMENT WITH SIPAT

Patient Readiness Level

- I. Knowledge & Understanding of the **Medical Illness** Process: Moderate
- II. Knowledge & Understanding of the **Transplant Process**: Moderate
- III. **Willingness/Desire for Treatment** with Transplant: Moderate
- IV: Treatment **Compliance/Adherence**: Limited
- V. **Lifestyle Factors** (including diet, exercise, fluid restriction, habits): Late ("Patient adheres to recommended changes only after the development of complications.")

Social Support System

- VI. **Availability** of Social Support System: Good
- VII. **Functionality** of Social Support System: Good
- VIII: Appropriateness of **physical living space & environment**: Good

Psychological Stability and Psychopathology

- IX: Presence of psychopathology: Severe psychopathology

A) **Depression assessment:** Moderate depression (PHQ-9 of 14)
B) **Anxiety assessment: Moderate anxiety** (social > generalized)
C) **PTSD assessment: Possible PTSD** (SSS-PTSD score of 2)
D) Mania assessment: No clinical mania
E) Psychosis assessment: No clinical psychosis
***Eating Disorder assessment: NOT ADDRESSED IN SIPAT**

- X. Organic Psychopathology/Neurocognitive impairment: Mild

A). Assessment of **current cognitive functioning**: Borderline (MOCA of **24/30**).

- XI. Influence of **Personality** traits vs disorder: Moderate
- XII. Problems with **truthfulness/deception**: Mild
- XIII. Overall risk for **psychopathology**: Severe

Effect of Lifestyle and Substance Use

- **XIV: Alcohol use disorder: Severe alcohol use disorder**
- **XV: Alcohol use disorder - Risk for Relapse: Extreme risk**
- ***Related Risk for Eating Disorder Relapse: NOT ADDRESSED IN SIPAT**
- XVI: Substance (illicit/prescription) use disorder: Minimal problems related to other drug misuse
- XVII: Substance (illicit/prescription) use disorder - Risk for relapse: Low risk
- XVIII: Nicotine use disorder: Past use (> 6 months)

ADDITIONAL TRANSPLANT CONSIDERATIONS

Patient Readiness Level

- **Limited insight** into ED diagnosis and contributions to hepatic failure
- Limited understanding of **interaction of ED and AUD**
- **Poor adherence** with prior ED and AUD treatment
- **Lack of agreement** to AUD and ED treatment

Social Support System

- **Partner** with a history of AUD
- Mother identified as primary support but **lacked stable, local housing**

Psychological Stability and Psychopathology

- Met criteria for **ARFID**
- Alcohol main source of calories prior to hospitalization
- **Cognitive impairment** present due to encephalopathy and malnourishment
- Concern that emphasis on **sobriety after transplant may worsen ED behaviors**
- Lack of comprehensive **treatment** options for ED and AUD

Lifestyle and Substance Use

- Met criteria for **severe AUD**
- **No periods of sobriety** prior to presentation
- **Family history** of AUD
- Employment as **bartender**

DISCUSSION

- There is currently a paucity of information regarding liver transplantation in patients with co-occurring AUD and EDs, which present with many unique considerations for pre- and post-transplant management.
- Existing screening methods such as the SIPAT do little to evaluate transplant risk in **patients with EDs relative to other psychiatric illnesses**.
- While predictive risk factors for recurrence of alcohol use after transplant have been identified, little is known about the risk factors for ED relapse.
- The **presence of EDs increases post-operative relapse** (3).
- The emphasis on abstinence from alcohol in the post-transplant period may be a **trigger for ED recurrence**(3).
- Post-transplant, patients with ED have an **increased risk of relapse** to alcohol and poorer retention in residential treatment(4).

CONCLUSIONS

- Patients with co-occurring ED and AUD requiring liver transplantation are a challenging patient population with complex pre- and post-transplant considerations.
- While the SIPAT does rely on specific diagnostic tools for identifying depression, anxiety, PTSD, mania, and psychosis (as well as the effect of substance use and risk of substance use relapse), **there is no current assessment for patients with eating pathology beyond the influence of personality traits**.
- Eating pathology is thought to have **common pathogeneses** with substance use disorders, both in **inherent genetic risks** associated with addictions, and in **personality traits** or **schema resulting in dependencies** that serve as maladaptive coping mechanisms.

Future directions:

- Identifying risk factors for eating pathology in the transplant setting is a research priority.
- Including diagnostic tools for identifying eating pathology may offer a more thorough SIPAT evaluation of risks in the transplant candidate, as well as informing treatment recommendations.

REFERENCES

1. Pollard, M, et al. "Changes in Adult Alcohol Use and Consequences During COVID-19 Pandemic in the US." JAMA Netw Open. 2020;3(9).
2. Bulik, Cynthia, et al. "Alcohol Use Disorder Comorbidity in Eating Disorders: A Multi-center Study." Journal of Clinical Psychiatry. 65:7, July 2004.
3. Coffman K Let al. "Treatment of the Postoperative Alcoholic Liver Transplant Recipient With Other Addictions. "Liver Transpl Surg. 1997;3:322–327.
4. Elmquist J,et al., "Eating Disorder Symptoms and Length of Stay in Residential Treatment for Substance Use: A Brief Report. "Journal of Dual Diagnosis, 11(3-4),233–237.
5. Nakai, Y., Nin, K., Noma, S., Teramukai, S., & Wonderlich, S. A. (2016). "Characteristics of Avoidant/Restrictive Food Intake Disorder in a Cohort of Adult Patients." European Eating Disorders Review: The Journal of the Eating Disorders Association, 24(6), 528–530.
6. Pineda-Garcia, Gisela, et al. "Assessment of Alcohol Consumption and Anxiety as Predictors of Risk of Anorexia and Bulimia in Non-Clinical Samples." International Journal of Environmental Research and Public Health. 2020; 17: 6293.
7. Legg, Nicole K., Briana J. Turner. "Personality correlates of eating pathology severity and subtypes in the National Comorbidity Survey." Journal of Clinical Psychology. 2021; 77: 189-210.
8. Redgrave, Graham, et al. "Discharge Body Mass Index, Not Illness Chronicity, Predicts 6-month Weight outcome in Patients Hospitalized with Anorexia Nervosa." Frontiers in Psychiatry. February 2021. Volume 12. Article 614861.
9. Schuckit; Tipp, Anthenelli, et al. "Anorexia Nervosa and Bulimia Nervosa in Alcohol-Dependent Men and Women and Their Relatives." American Journal of Psychiatry. 153:1, January 1996.
10. American Psychiatric Association: Practice Guidelines for the Treatment of Patients with Eating Disorders (Revision). 2006.

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