

Background

- Alcohol-related hepatitis is a deadly disease with a 30-day and 90-day mortality rate of 5.9% and 14.7% respectively.
- The death toll due to COVID-19 is over 570,000 in US alone.
- Studies suggest increased risk of adverse COVID-19 outcomes in patients with alcohol-related liver disease, however granularity of understanding of underlying liver disease is lacking.
- We report 9 cases of concomitant acute alcohol-related hepatitis and COVID-19 infection.

Methods

- Retrospective review of the electronic medical records at the Community Medical Centers system in Fresno, California revealed 9 cases with concomitant diagnosis of alcohol-related hepatitis and COVID-19.

Demographics

- Mean age of the patients was 45.6 years (34-67 years).
- Five out of nine were female.
- Three patients were Hispanic, five were Caucasian, while one was from India.

Presentations and Laboratory Values

- Three patients were symptomatic from COVID-19.
- Three patients presented with jaundice and ascites, two patients presented in alcohol withdrawal, one patient with vaginal bleeding. Two patients had hepatitis C infection.
- The following mean disease severity scores were calculated: Maddrey discriminant function 44.2, neutrophil/lymphocyte(N/L) ratio 8.7, MELD-Na 22.2

Age	Gender	Ethnicity	SOB on presentation	Neutrophil/Lymphocyte ratio	Maddrey Score	MELD Score	Steroids	Intubation	Death
40	F	Hispanic	No	11.1	88.62	33	Dexamethasone	Yes	No
54	F	Caucasian	No	11.5	24.94	18	None	No	No
38	M	Hispanic	No	3.8	63.96	30	Solumedrol	Yes	No
54	M.	Indian	Yes	4.8	76.02	32	Dexamethasone	Yes	Yes
34	M	Caucasian	Yes	8.2	14.1	19	Dexamethasone	No	No
67	F.	Caucasian	Yes	13.8	9.7	8	Dexamethasone	No	Yes
42	F	Caucasian	No	3.5	9.5	7	None	No	No
44	M	Hispanic	No	13.6	81.8	32	Prednisolone	Yes	Yes
38	F	Caucasian	No	7.8	28.54	21	None	No	No

Treatment and Outcomes

- Four patients were treated with dexamethasone, one with prednisolone, one with intravenous methylprednisolone.
- Four patients required intubation. Two were intubated for acute hypoxemic respiratory failure, and 2 for airway protection in the setting of large volume hematemesis.
- Three patients died during the hospitalisation due to respiratory failure (33%).
- Two patients had a prolonged length of stay (>1 month) while one patient had to be re-hospitalised within 6 months.

Conclusion

- In our case series of patients with concomitant COVID-19 and alcohol-related hepatitis, the majority of patients presented with severe disease resulting in high inpatient morbidity and mortality.
- The majority of the patients were women raising concern about the unique vulnerability of this group.
- Larger studies are needed to further define the relationship between COVID-19 and alcohol-related hepatitis.