BASELINE CHARACTERISTICS AND COMORBIDITIES OF PATIENTS ADMITTED WITH NONALCOHOLIC STEATOHEPATITIS: AN ANALYSIS OF NATIONAL INPATIENT SAMPLE DATABASE

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BACKGROUND

- Non-alcoholic fatty liver (NAFL), non-alcoholic steatohepatitis (NASH), and NASH cirrhosis are all manifestations of non-alcoholic fatty liver disease (NAFLD).
- In the Western world, NAFLD is the major cause of liver disease. NASH, a chronic and progressive illness that is marked by liver cell damage and fatty liver, is an inflammatory subtype of NAFLD that is linked to the development of cirrhosis, disease progression and the need for a liver transplant.
- NASH is underappreciated in clinical practice, despite its relevance. As a result, we decided to look for baseline features as well as the prevalence of NASH in adults.

METHODS

- The National Inpatient Sample database was used to analyze adult patients admitted with NASH from September 2015 to December 2019.
- The primary outcome was to determine the baseline characteristics of patients admitted with NASH. The disease burden in the hospitalized patient population was determined as a secondary outcome.
- SAS 9.4 the software was used for statistical analysis.
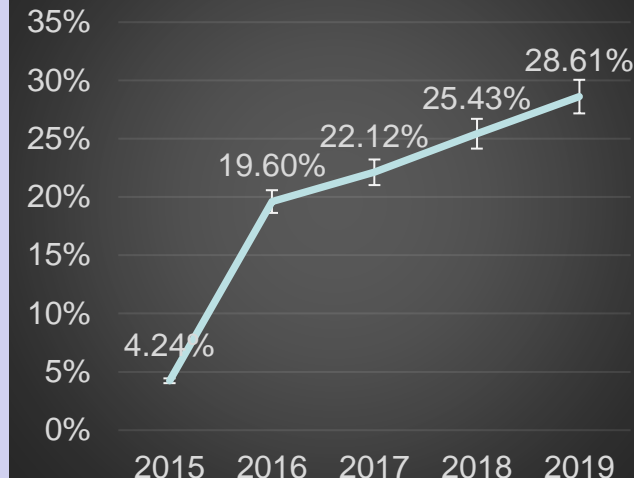
RESULTS

- During the course of our study, a total of 435,8455 patients with NASH were admitted.
- We also observed an increasing trend in hospitalization secondary to NASH from 2015 to 2019.
- The NASH cohort comprises predominantly elders, with a mean age of 61.8± 13.1 yrs. The prevalence of NASH was higher in Caucasians(74.7%), and females (62%).
- NASH is more likely to be associated with a high prevalence of comorbidities such as hypertension (62.5%), diabetes mellitus (61.4%), obesity (36.7%), smoking (31.9%), renal failure(27.3%), and coronary artery disease (23.1%).
- The majority of hospitalizations were categorized as emergent(87.3%) admissions.
- Medicare was the primary insurance for more than half of the hospitalized patients(56.7%).

TABLES

Table 1. Baseline characteristics of Patients Admitted with NASH.

NASH*	N = 435,845
Age, in years (Mean ± SD*)	61.8 ± 13.1
Age groups, %	
18 - 34 years	3.9%
35 – 49 years	12.6%
50 – 64 years	36.6%
65 – 79	40.2%
>79 years	6.6%
Gender, %	
Male	38%
Female	62%
Race, %	
Caucasians	74.7%
African Americans	4.2%
Others	21%
Comorbidities, %	
Hypertension	62.5%
Diabetes mellitus	61.4%
Congestive heart failure	22.1%
CAD*	23.1%
Peripheral vascular disease	4.6%
COPD*	22.2%
Renal failure	27.3%
Coagulopathy	32.5%
Obesity	36.7%
Drug abuse	2.4%
Alcohol abuse	3.7%
Smoking	31.9%
Atrial fibrillation	14.3%
Stroke	0.8%
VTE*	1.6%
Admission Type, %	
Emergent	87.3%
Elective	12.7%
Insurance type, %	
Medicare	56.7%
Medicaid	11.9%
Private	26.2%
Other	5.1%
Location/Teaching status of the hospital, %	
Rural	7.6%
Urban nonteaching	18.2%
Urban teaching	74.1%

NASH Trend

- 2015: 4.24%
- 2016: 19.60%
- 2017: 22.12%
- 2018: 25.43%
- 2019: 28.61%

CONCLUSION

Analysis of this large national database revealed an increasing trend of NASH hospitalizations over the course of the study period. NASH was more prevalent among Caucasians and females. Comorbidities like hypertension, diabetes, obesity, smoking and renal failure were more prevalent among NASH patients. It is crucial for further research in this area for a better understanding of the characteristics and comorbid conditions of NASH patients.

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