

NAFLD PREVALENCE AND OUTCOMES IN BMI SUBCLASS



PRESENTER:
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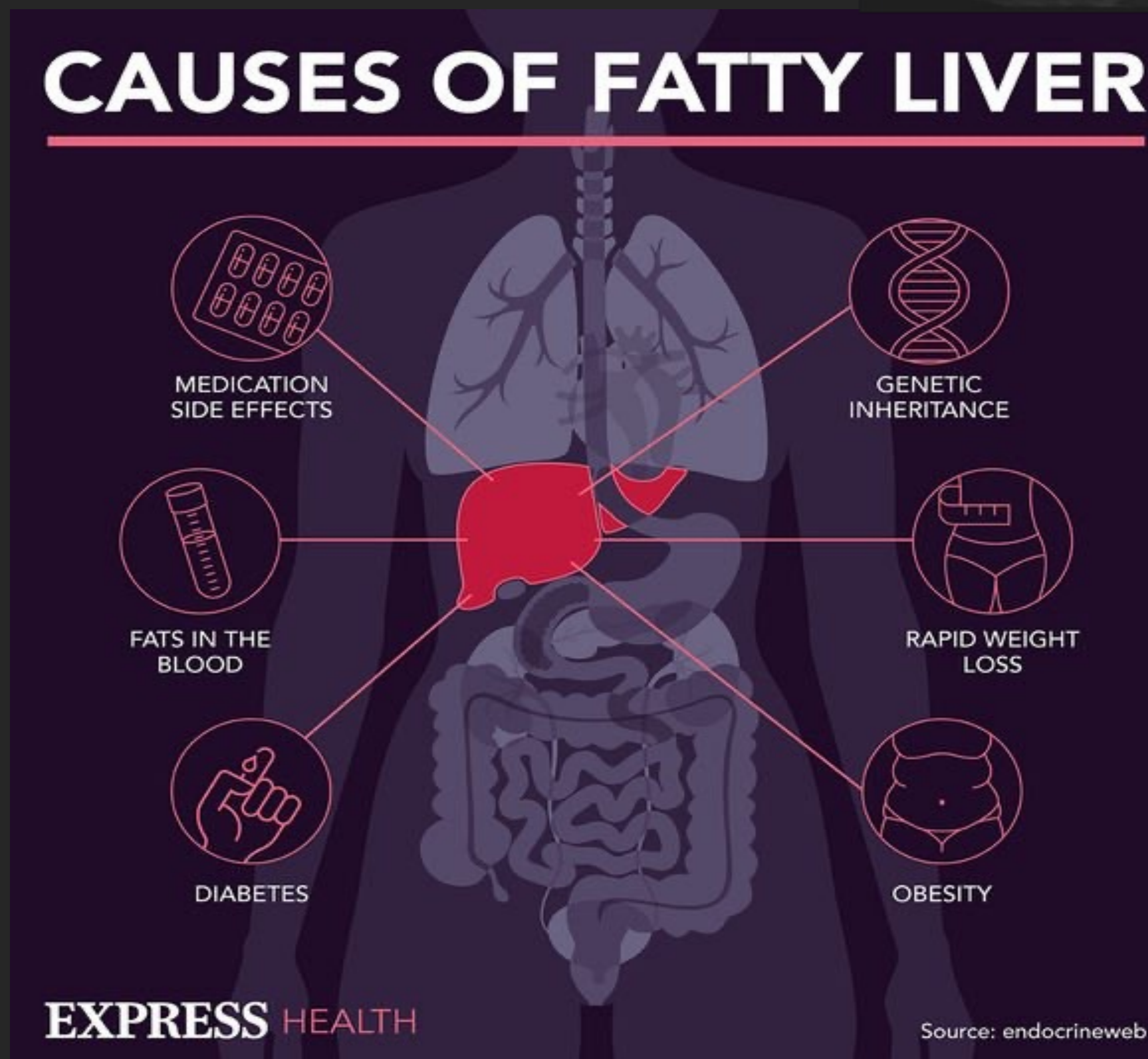
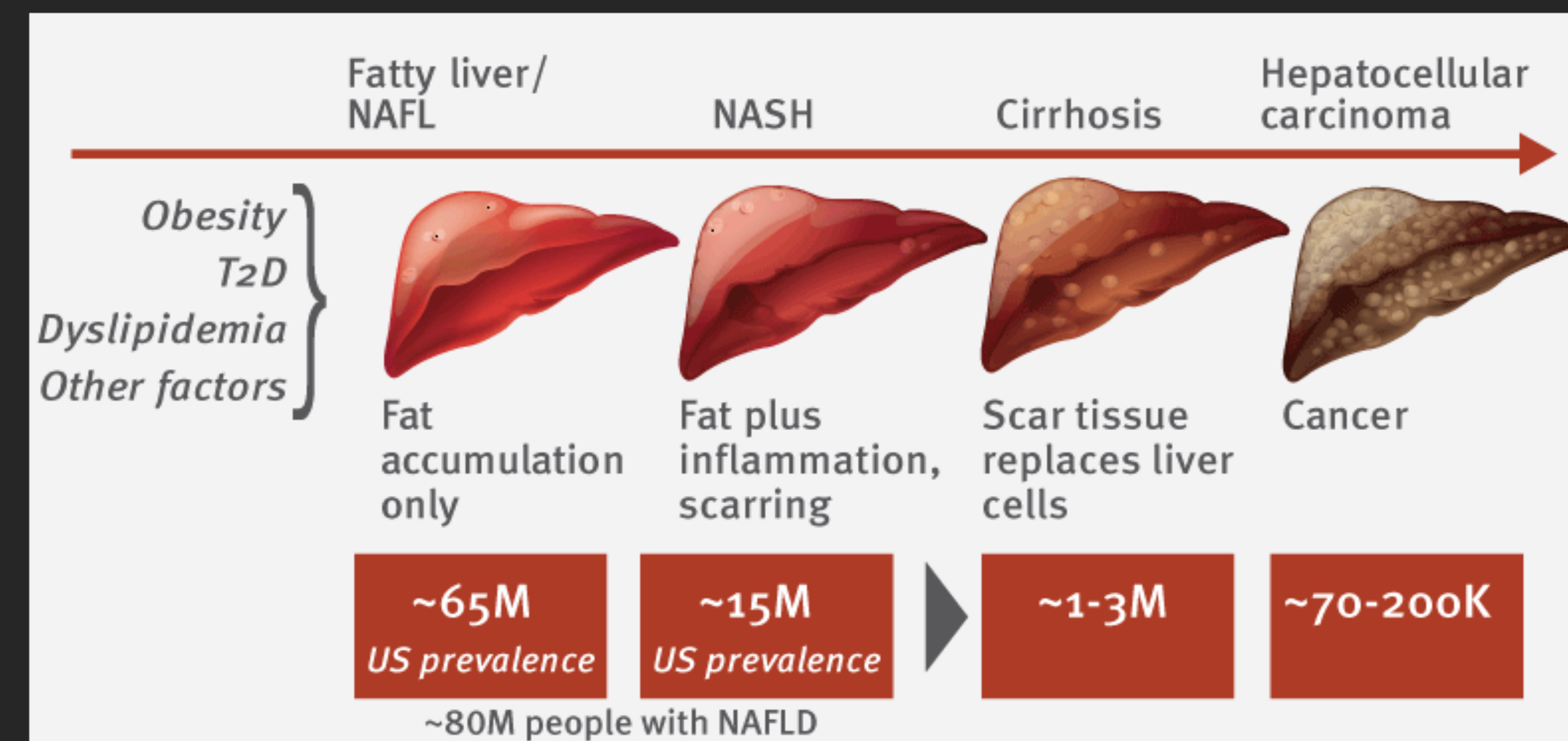
BACKGROUND:

- NAFLD has been historically associated with obesity but was recently found to have an association with lean individuals as well.
- We thereby conducted a nationwide study to identify the prevalence of NAFLD in different BMI categories and their association with mortality.

METHODS:

- We queried the 2019 NIS database to identify all adult (>18 years) patients with NAFLD using appropriate ICD-10-CM codes.
- We categorized BMI into category I (19.9 or less), category II (20-24.9), category III (25-29.9), category IV (30-34.9), category V (35-39.9), and category VI (>40) using appropriate ICD-10-CM codes.
- An univariate screen followed by multivariate logistic regression was performed to adjust for potential hospital and patient level confounders. Stata 17.0 software was used to perform all statistical analyses.

Lean individuals with NAFLD seem to have nearly **twice** the odds of mortality



RESULTS:

BMI in NAFLD	Total	Proportion
CATEGORY I (BMI 19.9 OR LESS)	7964	1.49%
CATEGORY II (BMI 20-24.9)	7530	1.41%
CATEGORY III (BMI 25-29.9)	13450	2.5%
CATEGORY IV (BMI 30-34.9)	36650	6.8%
CATEGORY V (BMI 35-39.9)	42715	8.02%
CATEGORY VI (BMI > 40)	94425	17.7%

DIED	Odds ratio	P- value	CI
CATEGORY I	1.71	0.00	1.3-2.2
CATEGORY II	1.23	0.214	0.88-1.7
CATEGORY III	0.98	0.89	0.73-1.3
CATEGORY IV	0.66	0.00	0.54-0.83
CATEGORY V	0.58	0.00	0.47-0.73
CATEGORY VI	0.87	0.067	0.76-1.0

Discussion:

Obesity has been linked with the development of NAFLD. As expected, our study demonstrated an increasing prevalence of NAFLD with higher BMI. However, we found that 2.9% of NAFLD patients were not obese. This group of patients had been termed "lean NAFLD". The hypothesis for lean NAFLD is poorly understood with theories including higher bile production and genetic variations. Interestingly, we found that category I NAFLD patients had higher odds of mortality compared to other BMI groups. These findings could be a result of lean individuals suffering chronic medical conditions or certain malignancies and is beyond the scope of our study. Further studies regarding etiologies for lean NAFLD might bring clarity to this subject.

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