PP 45: Non-alcoholic fatty liver disease in the South Asian Region: A systematic review and meta-analysis

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Introduction: Non-alcoholic fatty liver disease (NAFLD) is the commonest chronic liver disease worldwide.

Objectives: We estimated the overall prevalence and effect sizes of associations for NAFLD among adults in South Asia.

Methods: We searched for search terms "Prevalence of NAFLD (Non-Alcoholic Fatty Liver Disease)" AND "South Asia" AND individual South Asian countries from January 2004-May 2021 in PubMed database. Strict eligibility criteria were applied. Gender, urban or rural setting, general population and individuals with metabolic diseases stratified analysis. A random-effects meta-analysis was performed.

Results: Out of 158 studies, selected 25 studies from five countries (Bangladesh, India, Nepal, Pakistan and Sri Lanka) were included with 15,758 participants, of whom 4703 had NAFLD.
The pooled NAFLD prevalence was 40.5% [95% CI 33.7-47.5] in overall, 26.2% [95% CI 18.7- 4.4] in general population, 21.9% [95% CI 14.4-30.5] in rural communities, 32.9% [95% CI 22.8-43.8] in urban communities, 54% [95% CI 46.4-61.5] in individuals with one or more metabolic abnormalities and 11.1% [95% CI 7.1-16] among non-obese population. 41.4% of NAFLD patients were non-obese. Gender specific prevalence was similar. Prevalence of NAFLD among individuals with metabolic disease was significantly higher than the general population ($p<0.0001$). A significant association with NAFLD was found for metabolic syndrome, general obesity, central obesity, diabetes mellitus, dysglycemia, dyslipidemia and hypertension.

Conclusions: The overall prevalence of NAFLD among adults in South Asia is high, especially in urban populations and those with metabolic abnormalities. Targeted health-strategies should be implemented in the region to address this.

Keywords: Non-alcoholic fatty liver disease, South Asia, prevalence, risk factors, meta-analysis