

## **ABSTRACT**

TITLE OF THE ABSTRACT :Etiology of elevated alanine aminotransferase in a south Indian population - a community-based study

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### **AIM / OBJECTIVES:**

To estimate the burden of liver disease in a southern Indian community by determining the prevalence and etiology of elevated alanine aminotransferase in this population.

### **MATERIAL AND METHODS:**

A total of 9000 individuals from the city of Vellore and its neighbouring rural areas were screened for a seroprevalence study of celiac disease conducted by the Christian Medical College, Vellore as part of a three centre study in northern, north-eastern and southern India. Of these, 199 healthy individuals (145 males) had elevated ALT (>44U/l). Ninety one participants (77 males) had persistently elevated ALT, of which 56 patients (52 males) underwent further

evaluation. These individuals were invited to answer a questionnaire and undergo anthropometry, blood investigations and ultrasonography to assess various etiologies of liver disease. Standard descriptive statistics were used.

### RESULTS:

The estimated prevalence of persistently elevated ALT suggestive of possible liver damage in this south Indian population was 1.73% (1.01% to 1.93%). The most common etiologies of elevated ALT were alcohol intake (46.4%), NAFLD (42.9%) and hepatitis B (10.7%). No participant had hepatitis C infection. A majority (71.4%) of individuals had metabolic syndrome, 92% of whom had NAFLD.

### CONCLUSIONS:

From a public health perspective, early clinical intervention and primary prevention are important and strategies to reduce both alcohol consumption and obesity may lead to reduction in liver disease.