145 THE PREVALENCE OF FATTY LIVER IN OVERWEIGHT AND OBESE CHILDREN COMPARED TO NORMAL CHILDREN

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Background and aims: Nonalcoholic fatty liver disease is the most common cause of liver disease worldwide and is defined as a disorder of excess fat accumulation in the liver. This study aimed to determine the prevalence of fatty liver among overweight and obese children compared to normal children.

Methods: This case-control study was conducted on 90 children ages 5 to 13. Children's Body Mass Index (BMI) was determined and the three groups obese (95% >BMI), over weight (85–95% BMI) and normal (5–85% BMI) divided. People in the study were matched for age and sex. Liver enzymes (ALT & AST) and lipid profile were measured and a radiologist who didn't know children's BMI examined them based on fatty liver sonographic parameters. And finally data analyzed using SPSS (Ver-18), ANOVA and Tukey's tests. Sometimes data distribution wasn't normal and Kruskal-Wallis test was used.

Results: The prevalence of fatty liver was 23/3% in obese children that was higher compared with normal (16/7%) and over weight (16/7%) children. Based on the result of this study the prevalence of fatty liver wasn't significantly different between the sexes. AST was significantly higher in children with normal BMI ($p<0.01$) as well as cholesterol levels showed there was a significant difference among the three groups.

Conclusion: Based on developing a large number of obese children in this age to fatty liver, these children should be using weight and waist circumference as an indicator of obesity and measuring LDL and ALT as risk factors of fatty liver disease and have regular screening.