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<b>Title</b>	CORRELATION OF ALT/AST RATIO WITH INSULIN RESISTANCE IN METABOLIC SYNDROME-A HOSPITAL BASED OBSERVATIONAL CROSS SECTIONAL STUDY
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<b>Category</b>	Obesity and metabolic syndrome
<b>Abstract</b>	<p><b>BACKGROUND</b> In recent years, non-alcoholic fatty liver disease is considered as a novel component of insulin resistance and metabolic syndrome, which is associated with long-standing elevation of liver enzymes .The aim of this study was to correlate the ALT/AST ratio with insulin resistance calculated by HOMA-IR method among patients found to have metabolic syndrome.</p> <p><b>DESIGN AND METHODOLOGY:</b> This is a hospital based observational cross sectional study which included 60 subjects of metabolic syndrome defined by International Diabetes Federation criteria.The relevant clinical examination and basic investigations were done. Fasting insulin levels were analysed by chemiluminescence method .Liver function tests were done by fully automated Analyzer Synchron CX-9 using Roche kits, calibrators and Randox control Sera. Data was processed and analyzed by SPSS version 17.0 software. The Correlation between ALT/AST ratio and HOMA-IR was assessed using The Pearson correlation test.</p> <p><b>RESULTS</b> About 83.3% of patients were observed to have ALT/AST RATIO<math>\geq</math>1. On considering patients whose HOMA IR<math>\geq</math>2 as insulin resistant and HOMA&lt;2 as non insulin resistant, it was found that about 81.7% patients among the study group were insulin resistant. The ALT/AST Ratio was found to have positive correlation with HOMA-IR (Pearson's correlation coefficient is +0.742 and the significance was &lt;0.001). The ROC curve of ALT/AST Ratio was plotted in relation to HOMA-IR and the area under the curve was 0.862 and the cut off of about 1.06 has the sensitivity of 93.9% and the specificity of 81.8%.</p> <p><b>CONCLUSION</b> This study shows that ALT/AST ratio can be used as screening tool of metabolic syndrome in the community. Further studies are needed on liver enzymes in subjects with metabolic syndrome in comparison with normal population and definite cut off of HOMA- IR to identify metabolic syndrome should be derived among different population.</p>
<b>Conflicts</b>	
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<b>Decision of Scientific committee</b>	
<b>State if accepted for oral</b>	