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**SEX SPECIFIC DIFFERENCES IN THE DEVELOPMENT
OF ALCOHOLIC LIVER DISEASE**

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Actuality. Alcoholic liver disease (ALD) is a major global health issue, with liver cirrhosis from alcohol ranking as the 8th leading cause of non-communicable death. Despite higher male mortality from liver cirrhosis, alcohol has a more severe impact on females, with a higher alcohol-attributable fraction. Studies suggest females are more prone to ALD due to biological factors like estrogen's influence on liver injury and differences in alcohol metabolism. This research aims to explore sex differences in alcohol-related liver disease through a case study.

Goal: to investigate the clinical profiles of male and female patients with Alcoholic Liver Disease and to determine the impact of gender on the severity of the disease.

Materials and methods. A total of 300 case reports were reviewed from the Gastrointestinal Department of the EV Klumov 3rd City Clinical, Minsk. Cases were reviewed to identify patients diagnosed with liver disease of purely alcoholic etiology. Twenty-six cases meeting the inclusion criteria were identified. These cases were categorized into two groups based on gender and a comparative analysis between the groups was performed.

Results and their discussions. 12 female patients (mean age: 49.91 ± 7.61 years) were compared with 14 male patients (mean age: 53.07 ± 14.5 years). All female patients (100%) developed liver cirrhosis, while 71.42% ($n=10$) males developed the same ($\chi^2 = 4.052$, $p=0.045$). Ascites was found in 83.33% ($n=10$) females and 28.57% ($n=4$) males ($\chi^2 = 7.797$, $p = 0.006$). Although Anemia was more prevalent amongst females (91.67%) compared to males (64.28%) it was not statistically significant ($\chi^2 = 2.729$, $p = 0.099$).

Additionally a positive moderate correlation between Alcoholic liver cirrhosis and Hepatomegaly ($r=0.51$) was found. Furthermore, the Child-Pugh classification was used to group the patients into 3 severity groups (A, B and C). Majority of the Females were classified as class C (58%) while rest of the females were class B (42%). Whereas in Males all 3 classes were seen, with Class A, B and C having 14%, 50% and 36% respectively.

Males showed considerably greater GGT levels 257.64 (117.9; 702.44) U/L than females 69.31 (51.18; 387.96) U/L ($p = 0.04$), according to an analysis of serum biochemical parameters. In a similar vein, males had considerably higher CRP levels 35.46 (15.20–56.10) mg/L than females 8.8 (7.40–40.50) mg/L ($p = 0.04$). While other biochemical indicators were similarly greater in males than females, these differences did not achieve statistical significance.

Conclusions. This study shows that females develop Alcoholic Liver Disease (ALD) at a younger age than males, despite lower levels of alcohol consumption. Females also experience a more severe disease course, as evidenced by a higher prevalence of liver cirrhosis and ascites, and a greater proportion classified under Child-Pugh classes B and C. The severe progression of disease in females, despite relatively lower biochemical marker levels, may be attributable to the presence of significant liver cirrhosis and fibrosis.