Metabolic Variables and Associated Factors in Acute Pancreatitis Patients Correlates with Health-Related Quality of Life

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Abstract : Background: The rising prevalence and incidence of Acute Pancreatitis (AP) and its associated metabolic variables known as metabolic syndrome (MetS) are common medical conditions with catastrophic consequences and substantial treatment costs. The correlation between MetS and AP, as well as their impact on Health Related Quality of Life (HRQoL) is uncertain, and because there are so few published studies, further research is needed. As a result, we planned this study to determine the relationship between MetS components impact on HRQoL in AP patients. Patients and Methods: A prospective, observational study involving the recruitment of patients with AP with and without MetS was carried out in tertiary care hospital of North India. Patients were classified with AP if they were diagnosed with two or more components of the following criteria, abdominal pain, serum amylase and lipase levels two or more times normal, imaging trans-abdominal ultrasound, computed tomography, or magnetic resonance. The National Cholesterol Education Program–Adult Treatment Panel III (NCEP-ATP III) criterion was used to diagnose the MetS. The various socio-demographic variables were also taken into consideration for the calculation of statistical significance (P≤.05) in AP patients. Finally, the correlation between AP and MetS, along with their impact on HRQoL was assessed using Student's t test, Pearson Correlation Coefficient, and Short Form-36 (SF-36). Results: AP with MetS (n = 100) and AP without MetS (n = 100) patients were divided into two groups. Gender, Age, Educational Status, Tobacco use, Body Mass Index (B.M.I), and Waist Hip Ratio (W.H.R) were the socio-demographic parameters found to be statistically significant (P≤.05) in AP patients with MetS. Also, all the metabolic variables were also found to statistically significant (P≤.05) and found to be increased in patients with AP with MetS as compared to AP without MetS except HDL levels. Using the SF-36 form, a greater significant decline was observed in physical component summary (PCS) and mental component summary (MCS) in patients with AP with MetS as compared to patients without MetS (P≤.05). Furthermore, a negative association between all metabolic variables with the exception of HDL, and AP was found to be producing deterioration in PCS and MCS. Conclusion: The study demonstrated that patients with AP with MetS had a worse overall HRQOL than patients with AP without MetS due to number of socio-demographic and metabolic variables having direct correlation impacting physical and mental health of patients.
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