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Risk of Obesity, Diabetes, Insulin resistance, and Dyslipidemia among Irritable Bowel Syndrome patients.

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Abstract

Background: Obesity, diabetes, and dyslipidemia are components of metabolic syndrome; with a raising global prevalence, our study aimed to assess the susceptibility of IBS patients to these diseases.

Methods: PubMed, Scopus, Embase, and Web of Science were searched on the 1st of January 2023.

Only observational controlled studies were included. Analysis was conducted by RevMan software version 5.4.

Results: IBS patients had a significantly higher prevalence of obesity (RR = 1.25, 95% CI = 1.01 to 1.55, p-value = 0.04) and increased BMI (MD = 1.51, 95% CI = 0.98 to 2.03, p-value >0.00001) compared to non-IBS patients. There wasn't significant association between IBS, increased blood glucose level (MD= 0.14, 95% CI = -1.23 to 1.52, p-value = 0.84), or diabetes (RR= 1.29, 95% CI = 0.85 to 1.98, p-value = 0.23), on the other hand, increased insulin resistance was seen among IBS patients (HOMA- IR MD = 0.21, 95% CI = 0.15 to 0.26, p-value >0.00001). Analysis of lipid profile showed that significantly higher levels of HDL (MD = -1.80, 95% CI = -3.02 to -0.59, p-value =0.004), LDL (MD = 5.98, 95% CI = 0.91 to 11.05, p-value = 0.02), triglycerides (MD = 11.93, 95% CI = 11.55 to 12.31, p-value >0.00001), and total cholesterol (MD = 12.21, 95% CI = 6.23 to 18.18, p-value >0.0001) was observed among IBS patients.

Conclusion: IBS patients are at a higher risk of obesity, insulin resistance, and dyslipidemia. Consequently, patients should be regularly screened and early management should be initiated.

Keywords: Obesity; Diabetes; Dyslipidemia; Irritable Bowel Syndrome