

Celiac Disease in Patients with Inflammatory Bowel: Has the Inpatient Prevalence Changed and Is It Associated with Worse Outcome? A Nationwide Inpatient Sample Analysis

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Introduction

Inflammatory bowel disease (IBD) and celiac disease (CeD) are immune-mediated diseases characterized by chronic intestinal inflammation. This study aimed to evaluate the prevalence of CeD, the impact of CeD on outcomes among IBD hospitalizations.

Methods

The NIS was used to identify adult patients with IBD hospitalizations from 2010 to 2014 using ICD-9 codes. Primary outcomes were mortality, hospital charges, length of stay (LOS) and colorectal surgery. The secondary outcome was the trend of the prevalence of CeD in IBD hospitalizations.

Results

There were 516,891 IBD related hospitalizations from 2010 to 2014, of which 1582 patients had CeD. The control group consisted of 7913 IBD hospitalizations without CeD. The average age of patients having CeD with IBD was 43.5 years old, 32.0% were male and 81.6% were Caucasian. IBD with CeD was associated with a lower rate of colorectal surgery compared to IBD without CeD (4.06% vs 5.90%, aOR 0.62, 95% CI =0.47-0.81, p-value< 0.001), but differences in mortality rate, LOS, and hospital charges were not significant. The prevalence of CeD in patients with IBD related hospitalizations increased from 0.23% to 0.45%. The annual percentage change (APC) of the prevalence of CeD in patients with IBD related hospitalizations was 0.058 (95% CI =0.026-0.089, p-value< 0.05). Subgroup analysis showed CeD was associated with a lower rate of colorectal surgery in adult patients with CD (1.2% vs 2.1%, aOR 0.36, 95% CI =0.18-0.72, p-value< 0.05) and was not associated with different outcomes in UC hospitalizations.

Conclusion

The prevalence of CeD in IBD hospitalizations from 2010 to 2014 increased. This may be a result of increased awareness and testing for CeD. CeD was associated with a lower rate of colorectal surgery in CD and was not associated with different outcomes in UC. This may be explained by CD phenotypes with CeD that elicits a small bowel predominant presentation leading to lower colorectal surgery rates.