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Life expectancy and health-adjusted life expectancy are decreased in people living with inflammatory bowel disease: a population-based matched cohort study

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Introduction

Inflammatory bowel disease (IBD) is a chronic immune-mediated disease of the gastrointestinal tract. Significant improvements in treatments for IBD have occurred in the past two decades. However, the benefits of new treatments on mortality is uncertain and no prior study has evaluated the life expectancy (LE) of patients with IBD.

Objectives and Approach

We determined trends in the LE and health-adjusted life expectancy (HALE) in IBD. The Ontario Crohn's and Colitis Cohort includes all patients in Ontario with IBD, identified from health administrative data using a previously validated algorithm. Cases were matched to five controls based on age, sex, rural/urban, and mean neighbourhood income quintile. Period life tables were used to calculate LE on July 1, 1996, 2000, and 2008. The Canadian National Population Health Survey (1996/97) and Canadian Community Health Survey (Cycles 1.1 and 2009/10) were used to estimate health utility index (HUI3). HALE was estimated using HUI3-weighted disability-free years lived.

Results

LE increased from 75.5 years (y) in 1996 to 78.0y in 2008 among women with IBD ((Δ2.5y, 95%CI 0.8 to 4.1) and from 72.2y in 1996 to 75.1y in 2008 among men with IBD ((Δ2.9y, 95%CI 1.8 to 4.0). HALE decreased among men with IBD (Δ3.9y, 95%CI 1.2 to 6.6; 1996: 67.0y; 2008: 63.1y) but was stable among women with IBD ((Δ2.0y, 95%CI -1.6 to 5.7; 1996: 62.3y; 2008: 64.3y) and female controls ((Δ-0.4y, 95%CI -2.3 to 1.5; 1996: 74.3y; 2008: 73.9y) and male controls ((Δ0.2y, 95%CI -1.7 to 2.2; 1996: 69.6y; 2008: 69.8y). LE and HALE in both men and women with IBD were significantly decreased compared to controls (LE: women (Δ6-8y, men (Δ5y; HALE: women (Δ10-14y, men (Δ3-7y).

Conclusion/Implications

Although patients with IBD experienced increases in LE at a pace similar to those without IBD, the gap in LE between cases and controls remains significant. Increases in LE have not been accompanied by increases in HALE. Treatments that increase both LE and HALE in patients with IBD are needed.

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