Indiana-ACC Poster Competition Abstract

Do **NOT** write outside the boxes. Any text or images outside the boxes **will** be deleted.
Do **NOT** alter this form by deleting parts of it (including this text) or adding new boxes.
Please structure your clinical research abstract using the following headings: * Background * Objective * Methods * Results (if relevant) * Conclusion
Please structure your case study abstract using the following headings: * Introduction/objective * Case presentation * Discussion * Conclusion

Title:

Inflammatory Bowel Disease Increases Risk of Mortality
and Hospitalization in Patients with Heart Failure

Abstract: (Your abstract must use Normal style and must fit into the box. You may not alter the size of this)

INTRODUCTION

The purpose of this study is to assess the impact of inflammatory bowel disease (IBD) on patients with heart failure (HF) in terms of prevalence, mortality, heart transplantation/ventricular assist device (VAD) implantation, and hospitalizations.

METHODS

The data in this study was extracted from the Indiana Network for Patient Care (INPC) database, which was created in 1994 as a state-wide initiative for healthcare information exchange and research, and maintained by the Regenstrief Institute. The INPC currently includes data from over 100 hospitals in Indiana. Data was retrospectively collected utilizing electronic database algorithms and includes patients age 18 years or older from 2002-2011. The index dates were defined by the first IBD diagnosis code. We identified 12,073 patients with IBD who were age-matched with 12,073 control cases. The specific ICD-9 codes were utilized to identify and define diagnoses, such as HF, Crohn Disease, and Ulcerative Colitis. The patient data including mortality data, hospitalization, etc. were collected for two years prior to and following the index date.

RESULTS

The prevalence of HF in the IBD group was 4.08% compared to 6.64% in the control group (RR 0.61, 95% CI 0.55-0.68, $p<0.001$). The overall mortality difference was not significant i.e., 6.58% in the IBD group and 6.51% in the control group (RR 1.01, 95% CI 0.92-1.11, $p=0.815$). The mortality was significantly higher in patients with HF and IBD i.e., 29.20% compared to 23.32% for patients in the HF control group (RR 1.25, 95% CI 1.04-1.51, $p=0.018$). There was no difference in the rate of heart transplantation and VAD implantation between the two groups. Before the index date (date of first IBD diagnosis), the number of individual patients requiring hospitalizations was significantly higher i.e., 64.10% (316/493) in the IBD/HF group compared to 35.00% (281/803) in the HF control group (RR 1.83, 95% CI 1.63-2.06, $p<0.001$). After the index date, the number of individual patients requiring hospitalization was markedly higher i.e., 82.76% (408/493) in the IBD/HF group compared to 35.74% (287/803) in the HF control group (RR 2.32, 95% CI 2.09-2.56, $p<0.001$). In the HF control group there was no significant change in the number of individual patients hospitalized after the index date (RR 1.02, 95% CI 0.89-1.17, $p=0.754$). In the IBD/HF group, there was a significant increase in the number of individual patients requiring hospitalization after the index date (RR 1.29, 95% CI 1.19-1.40, $p<0.001$).

CONCLUSIONS

Patients HF and IBD are at increased risk of mortality and hospitalization compared to patients with HF alone. The prevalence of HF is lower in patients with IBD compared to the general population.

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