

Demographic associations and potential impact of comorbid conditions on complications of diverticular disease

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INTRODUCTION

Diverticular disease causes significant morbidity and impaired quality of life. Although often asymptomatic, serious complications including hemorrhage with/without infarction and inflammation with possible abscess formation, perforation, or fistulation may arise. The role of comorbid conditions on development of diverticular complications however remains to be elucidated. We sought to evaluate comorbid disease associations on the incidence of complications in diverticular disease.

METHODS

The Grady Healthcare inpatient database from 2010-2019 was queried and cases of diverticulosis identified. The incidence of diverticular disease related hemorrhage and diverticulitis was examined. Chi-squared and/or Fischer's exact tests where appropriate, were used to assess demographic and comorbid disease associations.

CONCLUSIONS

While HDD was directly associated with comorbid hypertension but not with diabetes mellitus, diverticulitis was inversely associated with comorbid hypertension and diabetes mellitus. Further studies are needed in prospective cohorts to evaluate the impact of comorbidities on patient outcomes in diverticular disease.

RESULTS

A total 418 cases of diverticulosis were identified, 67.22% were female, mean age was 65.15years (SD12.31), age-categories were 18-44years (5.98%), 45-64years (43.54%), 65-84years (42.58%), and ≥85years (7.89%). Racial/ethnic composition was predominantly black/African-American (85.65%), followed by white/Caucasian (6.22%), and Hispanic (5.26%). The mean body mass index (BMI) of patients with diverticular disease was 31.75 (SD12.2).

Hemorrhagic diverticular disease (HDD) occurred in 20.81% and diverticulitis in 5.50%. Patients with HDD had a mean age of 74.97years (SD12.90), and 63.22% were female. The mean BMI of patients with HDD was 33.03 (SD21.87), median=28.57 (IQR=25.22-35.46). Patients with complications of diverticulitis were younger with a mean age of 61.39years (SD12.60) and 69.57% were female. The mean BMI of patients with diverticulitis was 27.28 (SD9.19), median=24.36 (IQR=21.92-28.03).

Overall, patients with HDD compared to patients without were more likely to have comorbid hypertension (62.07% vs 46.53%, P=0.01), however no significant association was found with diabetes mellitus (19.54% vs 17.82%, P=0.41). On the other hand, patients with diverticulitis compared to patients without were less likely to have comorbid diabetes mellitus (4.35% vs 18.99%, P=0.04), and less likely to have comorbid hypertension (21.74% vs 51.39%, P=0.01).

Diverticulosis N= 418 cases	
Female = 67.22%	
Mean age = 65.15years (SD12.31)	
Racial/ethnic composition	
Black/African American (85.65%)	
White/Caucasian (6.22%)	
Hispanic (5.26%)	
Mean body mass index (BMI) = 31.75 (SD12.2)	
Hemorrhagic diverticular disease (HDD) = 20.81%	
Diverticulitis = 5.50%	

