FEMALE GENDER IS ASSOCIATED WITH DECREASED RESOURCE UTILIZATION IN PATIENTS ADMITTED WITH ULCERATIVE COLITIS: A NATIONAL INPATIENT SAMPLE ANALYSIS

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Introduction

- Gender differences in incidence of patients with ulcerative colitis (UC) have been well studied.
- There is a similar incidence of UC in western countries before age 45, however after age 45, males have a higher incidence.
- Although differences in incidence of UC are known, data regarding gender disparities in the outcomes of hospitalized patients with UC are largely unknown.
- We investigated the impact of gender on UC hospitalization outcomes.

Methods

- We queried the 2016-2019 National Inpatient Sample (NIS) databases using the ICD-10 codes.
- All adult patients with a diagnosis of UC (ICD-10 K51) were included.
- The relationship between gender and mortality, sepsis, shock, ICU, acute kidney injury (AKI), abdominal surgery, blood transfusion, length of stay and total hospitalization charge was analyzed using multivariate analysis.
- We adjusted for patient demographics, hospital characteristics and charlson comorbidities. Statistical analysis was performed using STATA, version 17.0.
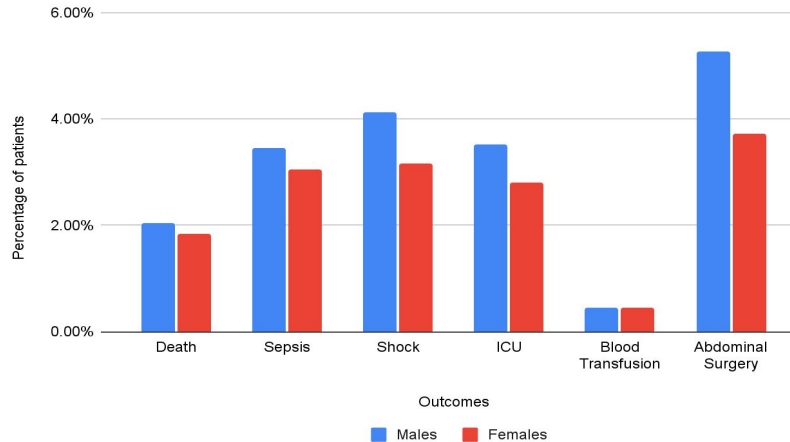

Table 1: Outcomes in patients with UC, stratified by gender

	Males	Females
Total hospital costs	16,192.13 (+/-170.89)	13,848.48 (+/-120.71)
Total Charge	67,113.06 (+/-835.1)	57,500.66 (+/-627.23)
Length of Stay	5.76 (+/-0.04)	5.41(+/-.03)

Table 1- Means of continuous outcomes, stratified by presence of Ileus + adjusted OR

Results

- Of the 467,340 adult patients admitted with a diagnosis of UC, 253,140 (54.2%) were female.
- There was no significant difference in mortality based on gender (aOR=1, p-0.95).
- Females had a decreased mean length of stay (-0.21 days, p< 0.001), hospitalization charge (-$6,981.09, p < 0.001) and cost (-$1,719.44, p < 0.001) compared to males.
- Females also had a statistically significant lower risk of developing sepsis (aOR=0.9, p=0.005), AKI (aOR=0.71, p< 0.001) and ICU admission (aOR=0.88, p-0.001).
- There was no difference between males and females in the development of shock (aOR= 0.94, p=0.078) and blood transfusion (aOR=1.15 ,p-0.162).
- Female gender was associated with a decreased need for abdominal surgery (aOR= 0.69, p< 0.001).

Conclusion

- While there was no mortality difference between the two genders, females incurred lower expenses in hospitalization charge and cost and developed lower rates of secondary outcomes such as sepsis, AKI, ICU admission and abdominal surgery.
- These gender differences can be due to complex interactions between genetics, immune dysregulation, environmental exposures and intestinal dysbiosis.
- These differences warrant further investigation and require attention by the gastroenterologists.