

# Post-Colon Ischemia Irritable Bowel Syndrome: A Multi-Center Prospective Study

Marc Fenster MD<sup>1</sup>, Suchi Thakker MD<sup>1</sup>, Rabia Rizwan MD<sup>3</sup>, Ahmad Nawaz MD<sup>3</sup>, Paul Feuerstadt MD<sup>2,3</sup>,  
Lawrence J. Brandt MD<sup>1</sup>

<sup>1</sup>Division of Gastroenterology, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY; <sup>2</sup> Gastroenterology Center of Connecticut, Hamden, CT; <sup>3</sup> Yale University School of Medicine, New Haven, CT



## BACKGROUND

Colon ischemia (CI) is the most common form of intestinal ischemic injury and is a common cause of acute lower gastrointestinal bleeding. Post-infection irritable bowel syndrome (IBS) is a well described entity that occurs in up to 20% of patients following an episode of infectious colitis and IBS is almost 5 times more common in patients after a bout of diverticulitis than in controls. To date there are no data considering whether IBS occurs following an episode of CI.

## AIM

The primary outcome of our study was the incidence of IBS after an episode of CI. Secondary outcomes included whether antibiotic usage, gender, and/or affected segment of colon correlated with the development of post-CI IBS.

## METHODS

- We reviewed the charts of all patients who underwent colonoscopy at Montefiore Medical Center between 1/2021 and 12/2021 and Yale New Haven Medical Center between 4/2021 and 12/2021

- Inclusion determinants were: (1) clinical presentation; (2) pancolonoscopic evaluation; (3) colonic pathology consistent with CI. Patients without all three inclusion determinants were excluded. Patients with intestinal surgery after CI, death prior to survey administration, previously diagnosed IBS, or an underlying GI disorder to potentially explain symptoms were excluded

- All patients included in the study were contacted via telephone within 3-6 months of their index diagnosis of CI to answer a 4-question survey based on the Rome IV Criteria for diagnosing IBS.

## RESULTS

Figure 1: Post-CI IBS Flow Diagram

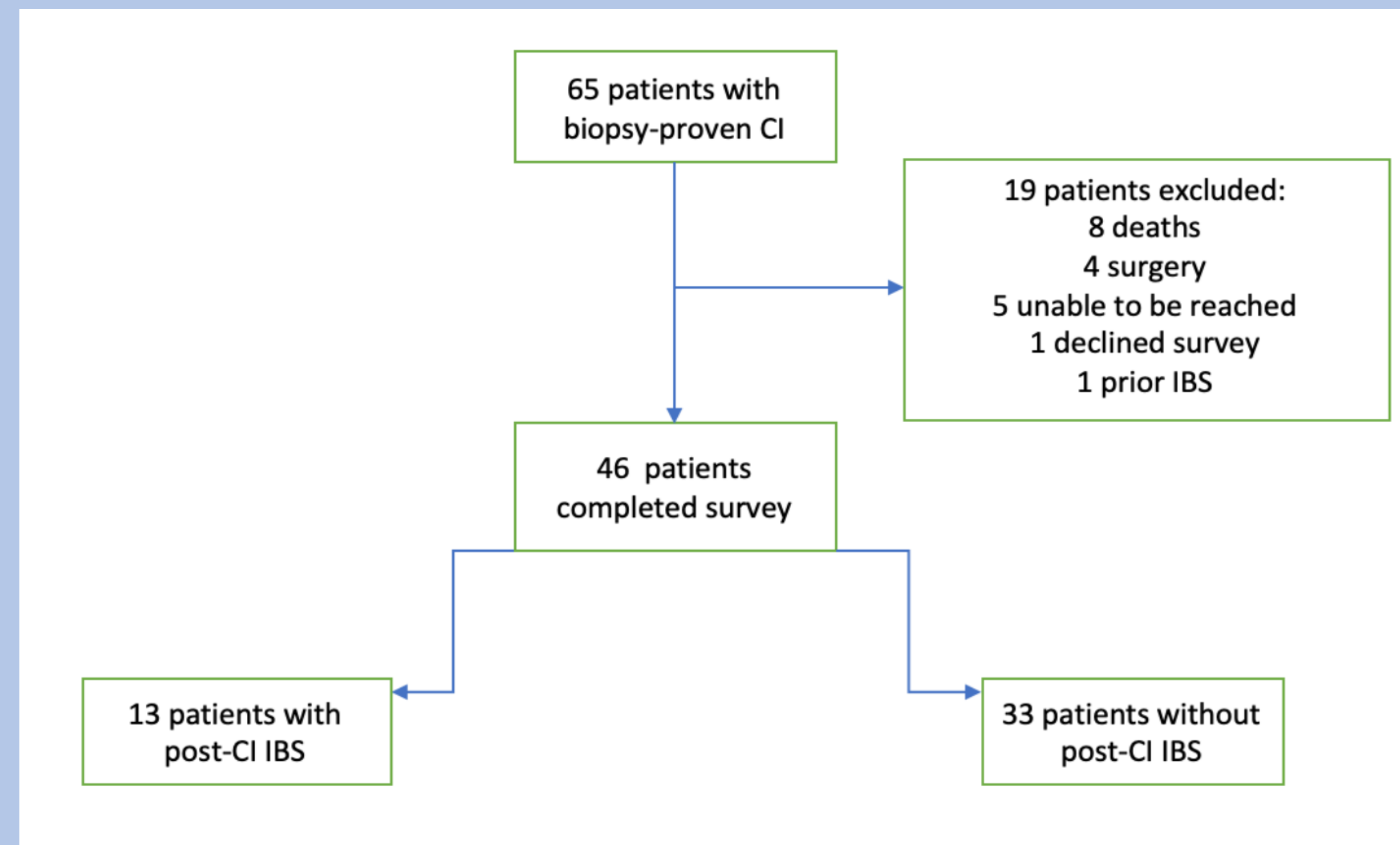


Table 1: Predictors of Post-CI IBS

	Post-CI IBS	No Post-CI IBS	p value
<b>Post-CI IBS vs No Post-CI IBS n (%)</b>	13 (28.3%)	33 (71.7%)	
<b>Age (yrs)</b>	63.0	67.0	0.41
<b>Gender, n (%)</b>			
Female	11 (84.6)	20 (60.6)	0.16
Male	2 (15.4)	13 (39.4)	
<b>Antibiotics, n (%)</b>			
Yes	11 (84.6)	15 (45.5)	<b>0.02</b>
No	2 (15.4)	18 (54.5)	
<b>Location of Disease, n (%)</b>			
IRCI	1 (7.7)	5 (15.1)	0.66
Left-sided or pancolitis	12 (92.3)	28 (84.8)	

Figure 2: Post-CI IBS

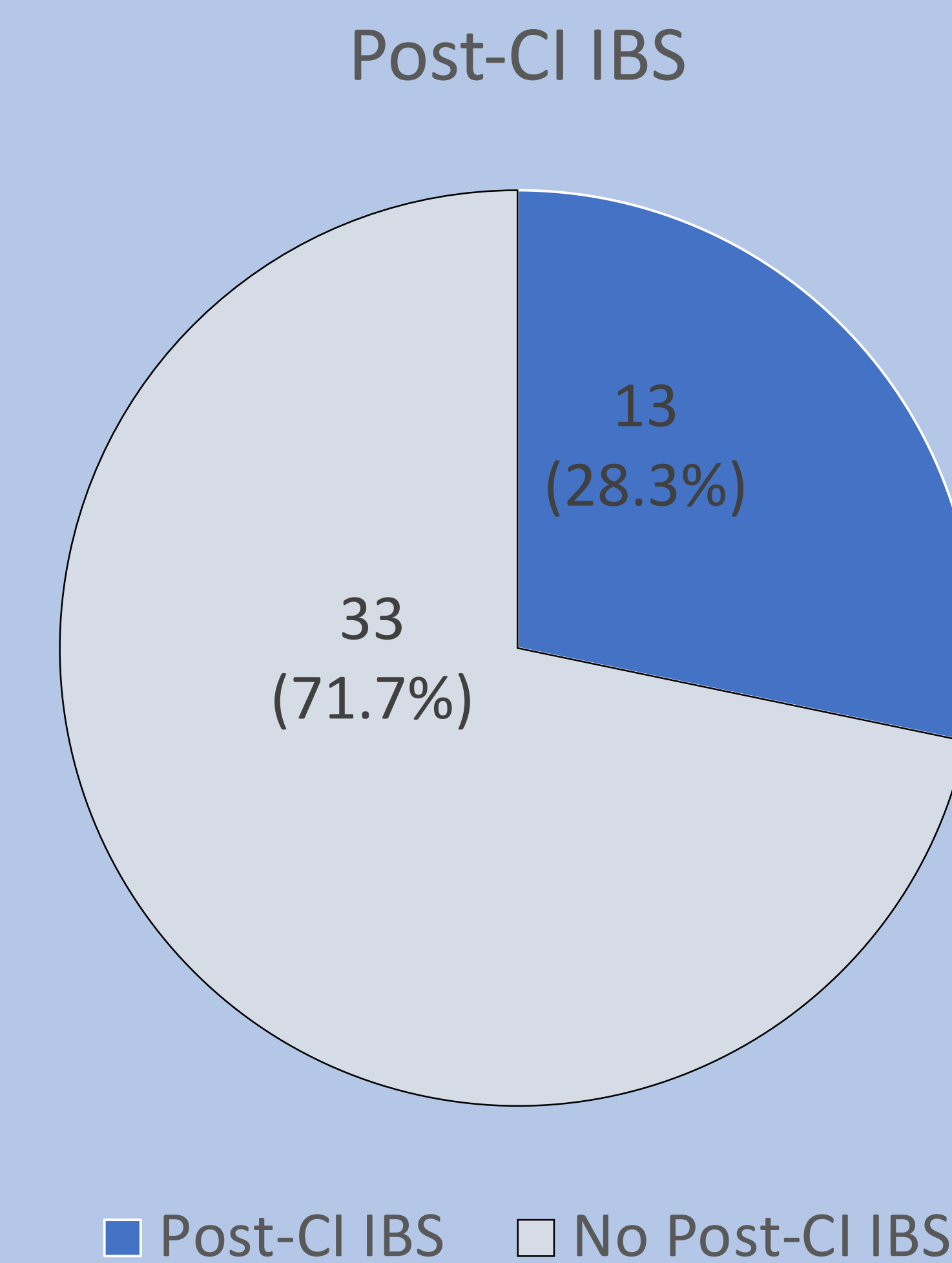
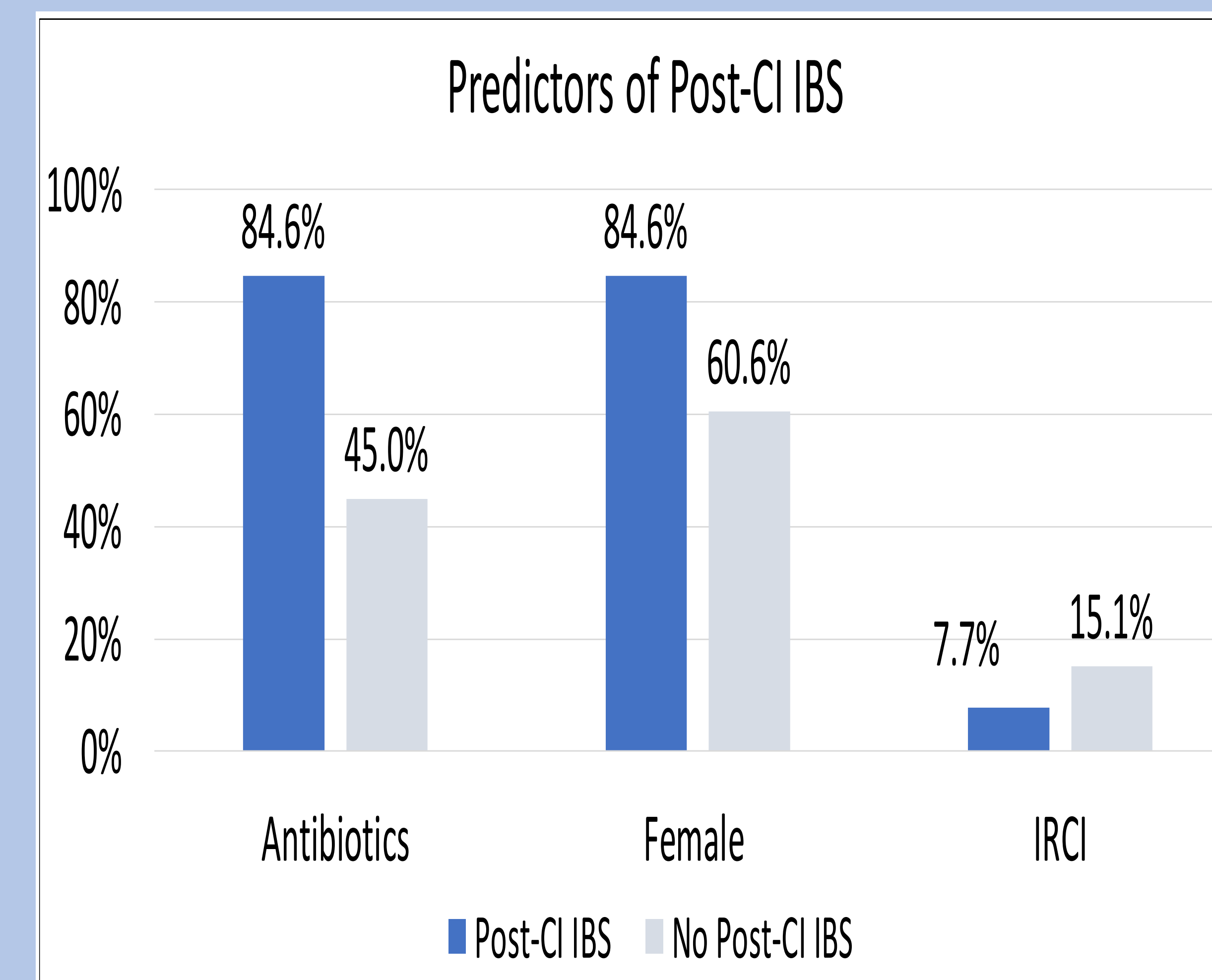


Figure 3: Predictors of Post-CI IBS



## SUMMARY

- 65 patients with biopsy-proven CI were identified. 12 patients were excluded as they died or required surgery, 5 patients were unable to be reached, 1 patient declined to complete the survey, and 1 patient had IBS prior to the episode of CI.

- 46 patients completed the survey, of whom 13/46 (28.3%) developed post-CI IBS.

- Of those with post-CI IBS 11/13 (84.6%) received antibiotics for treatment of their CI, and of the 24 patients who did not develop post CI IBS 15/33 (45.5%) received antibiotics (p=0.02).

- 84.6% of patients with post-CI IBS were female whereas 60.6% of patients who did not develop post CI IBS were female (p=0.16).

- Location of disease did not correlate with development of post-CI IBS.

## CONCLUSIONS

- Based on our study, post-CI IBS is likely a real entity which has not been previously described.

- Our study indicates antibiotics may play a role in the development of post-CI IBS and that consideration should be taken prior to initiating antibiotics in patients with mild to moderate CI

- Although not powered for significance our study suggests gender may play a role in the development of post-CI IBS

- Larger prospective studies are needed to further validate our findings.