Iron Deficiency Is Common After Total Proctocolectomy With Ileal Pouch Anal Anastomosis in Patients With Ulcerative Colitis

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BACKGROUND/AIM

BACKGROUND:

- 10-15% of patients with ulcerative colitis (UC) complicated by medically refractory disease or dysplasia will require total proctocolectomy (TPC) with ileal pouch anal anastomosis (IPAA)
- Micronutrient deficiencies may occur after TPC with IPAA due to alteration of the gastrointestinal tract, fecal stasis, and changes in mucosal morphology
- Iron deficiency may also occur after IPAA and has been observed in up to one-third of patients with- and without pouchitis

AIM:

The aim of this study was to report the incidence of iron deficiency anemia in patients with UC who underwent TPC with IPAA and identify associated risk factors

METHODS

- Retrospective chart review at a single, tertiary-care, high-volume IBD center
- Included 664 patients with UC or unspecified IBD (IBD-U) who underwent TPC with IPAA at Mount Sinai Hospital between January 2008 and December 2017
- Baseline characteristics and labs of the study population were analyzed
- Iron deficiency was defined by ferritin < 30 ng/mL
- Logistic regression was used to analyze unadjusted relationships between hypothesized risk factors and outcomes

RESULTS

Figure 1. Key Results Flowsheet

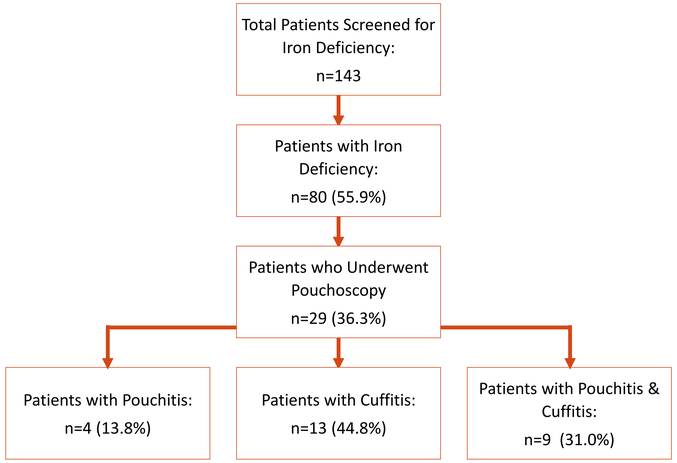

Table 1. Baseline Patient Characteristics

Total Patients (n)	143
Men	73
Women	70
Stapled Anastomosis	100 (69.9%)
Handsewn Anastomosis	43 (30.1%)
Median Rectal Cuff Length	1.5 cm

Table 2. Median Lab Values by Cohort

	Patients screened for Iron Deficiency	Patients found to be Iron Deficient
n	143	80
Hemoglobin	13.2 g/dL [12.0-14.3]	12.4 g/dL [10.9-13.3]
Ferritin	39 ng/mL [17.0-79.5]	14 ng/mL [9.0-23.3]
Iron	59.5 mcg/dL [34.0-84.0]	44 mcg/dL [26.0-68.8]

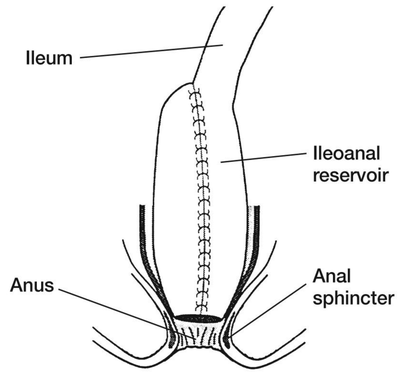

Figure 2. TPC with IPAA Representation

DISCUSSION

- Age, sex, anastomosis type, pouch duration, and history of pouchitis and/or cuffitis were not predictive of iron deficiency
- Other studies have shown that IDA after TPC with IPAA is related to underlying pouchitis
- A larger number of patients in this study had cuffitis, suggesting this or concomitant pouchitis/cuffitis as a more common etiology

LIMITATIONS:

- Most patients in this study did not undergo pouchoscopy, so the true incidence of pouch-related disorders may be underreported
- Alternative causes of IDA were not consistently evaluated
- A majority of patients did not undergo routine iron assessment; no standardization of iron screening post TPC with IPAA exists

CONCLUSION

- This study highlights the high incidence of iron deficiency after TPC with IPAA and suggests that physicians should be evaluating iron levels more regularly in this patient population
- Further, the underlying cause of iron deficiency can be secondary to pouchitis/cuffitis as noted in prior works, but iron deficiency can be seen in normal pouches as well, and a thorough evaluation for other causes is important

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