Low-dose metronidazole is associated with a decreased rate of endoscopic recurrence of Crohn’s disease after ileal resection

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BACKGROUND

• Recurrence of Crohn’s disease (CD) after surgical resection and primary anastomosis is an important clinical challenge.

• Previous studies have demonstrated the benefit of imidazole antibiotics, but have been limited by adverse effects and medication intolerance.

• This study assessed whether administration of low-dose (LD) metronidazole (250 mg three times a day) for three months reduces endoscopic postoperative recurrence rates.

METHODS

• We performed a retrospective cohort study of patients with CD who underwent ileal resection with primary anastomosis and subsequently received care at our center.

• We compared the cases who received LD metronidazole (primarily from one clinician, DTR) to control patients (DTR and others) who did not receive this therapy.

• Data collected included demographics, risk factors for recurrence, and medications before and after surgery.

• The primary endpoint was the number of patients with ≥i2 (Rutgeerts) endoscopic recurrence by 12 months.

• Variables found to be predictive in univariate analysis at p<0.10 were introduced in the Cox model for multivariate analysis.

RESULTS

• 70 CD patients (35 cases) met inclusion criteria.

• Risk factors for Crohn’s recurrence were similar between groups (Table).

• Eight participants (22.86%) in the LD metronidazole group experienced adverse events, and 3 of these patients (8.57%) discontinued the therapy.

• Low-dose metronidazole for three months postoperatively significantly reduces endoscopic recurrence of CD and is safe and well-tolerated.

• This intervention should be considered as a bridge to other therapies after ileocolostomy.

Table 1. Patient characteristics. Median time to endoscopic follow-up for both groups was similar (cases: 184 days, IQR 178-246; controls: 192 days, IQR 166-250). The number of patients with ≥i2 endoscopic recurrence following ileal resection was significantly lower in the LD metronidazole group (7 of 35 patients; 20%) compared to the control group (19 of 35 patients; 54.3%) (p=0.0058).

FIGURE 1. Percent of patients without endoscopic recurrence (Rutgeerts score < i2) and with endoscopic recurrence (Rutgeerts score ≥ i2) after ileal resection with primary anastomosis (95% CI: 0.065-0.610)

CONCLUSION

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