

The Impact of Preoperative Anti-TNF in Surgical and Infectious Complications of Abdominal Procedures for Crohn's Disease: Controversy Still Persists

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To the Editor: We read with interest the article "Anti-tumor necrosis factor therapy is associated with infections after abdominal surgery in Crohn's disease patients", recently published in this journal, by Ali Syed *et al.* (1). In this paper, the authors analyzed 325 abdominal operations performed for Crohn's disease (CD) in 211 patients (150 procedures with previous anti-tumor necrosis factor (TNF) therapy), and compared several outcomes regarding complications with 175 procedures without previous exposure to these agents.

The authors found that there was a higher rate of overall infectious complications (36% vs. 25%, $P=0.05$) after operations in patients with previous anti-TNF as compared to the control group. Using multivariate analysis, preoperative anti-TNF was described as an independent predictor of infectious (odds ratio (OR)=2.43, confidence interval (CI) 1.18–5.03) and surgical site complications (OR=1.96, CI 1.02–3.77) in CD patients.

Some findings of this study must be taken into consideration. First, the majority of the operations were performed by 21 different surgeons, which is an important cause of bias although all of the surgeons were from the same institution. Second, more patients in the anti-TNF exposed group had perianal CD (43% vs. 27%, $P=0.02$), a known feature of disease severity, although this was not significant in logistic regression analysis. Lastly, a significant fraction of the procedures did not include any resection (35%) or an anastomosis (36%).

Some recent retrospective studies have demonstrated opposite results. In a cohort from Canada (2) and in a populational study from Denmark (3) (the largest series to date, 214 patients with previous anti-TNF), there were no increased rates of medical and surgical complications in patients with previous exposure to biological agents.

The first prospective study regarding the effect of preoperative anti-TNF in CD was recently presented at DDW 2013. Lau *et al.* (4) described that higher serum levels (above 8 µg/g) of Infliximab (IFX) measured up to 7 days before the operations increased the rates of complications in CD, but not in ulcerative colitis patients (5). The authors justified these findings, stating that this was due to a reduced washout period of IFX in ulcerative colitis patients.

In conclusion, the clear impact of preoperative anti-TNF therapy in surgical and medical outcomes after abdominal operations for CD remains to be determined. There is a clear need for a prospective multicenter trial, and the study by Lau *et al.* demonstrated that serum level measurement can be a key point to address this

important topic. Controversy still persists regarding the impact of anti-TNF agents in surgical outcomes after abdominal procedures for CD.

Q2

CONFLICT OF INTEREST

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