LETTER TO THE EDITOR

The risk of postoperative complications following preoperative anti-TNF therapy in patients with Crohn's disease: The need for prospective studies

Dear Sir,

We read with interest two meta-analyses recently published in this journal on the risk of postoperative complications following preoperative anti-TNF therapy in patients with Crohn's disease (CD).1,2 In the first meta-analysis,1 six studies assessing overall postoperative complications in CD patients (n = 1316) and seven studies assessing infectious postoperative complications in CD patients (n = 1699) were included. In the second meta-analysis,2 six studies involving 1159 CD patients were included. The majority of the studies included in the two studies1,2 were identical.

In the first study,1 the prevalence of overall postoperative complication was nearly significantly increased in patients treated with preoperative anti-TNF therapy as compared with those without preoperative anti-TNF therapy (odds ratio [OR]: 1.31; 95% confidence interval [CI]: 0.96–1.77). Furthermore, the prevalence of infectious postoperative complications was significantly increased in patients who received preoperative anti-TNF therapy (OR: 1.45; 95% CI: 1.03–2.05). In contrast, in the second study,2 there was no significant difference in the incidence of major complications (OR: 1.59; 95% CI: 0.89–2.86) and minor complication (OR: 1.80; 95% CI: 0.87–3.71) between patients treated with and without preoperative anti-TNF therapy.

The first study1 concluded that preoperative anti-TNF therapy increases the occurrence of overall postoperative complications, and particularly infectious complications. The second study2 concluded that anti-TNF therapy does not increase the risk of postoperative complications. We are confused by these different conclusions.

Yang et al. conducted a meta-analysis to evaluate the effect of preoperative infliximab use on postoperative complications in patients with ulcerative colitis (UC). In the initial report in 2010, a total of five studies (n = 706) were included, and they reported that preoperative infliximab use increased the risk of postoperative complications. In 2012, the same authors conducted the second meta-analysis including 13 studies (n = 2933), and found that there was no significant relationship between preoperative infliximab use and postoperative complications. Inclusion of eight recent studies has changed their conclusions. Thus, the results of these studies are not consistent in patients with UC.

There have been several limitations in the previous meta-analyses.1–4 The majority of the studies analysed in the meta-analyses were limited by small sample sizes or a retrospective design, and are not appropriately designed to evaluate the effects of anti-TNF therapy on postoperative complications. The confounding effect of concomitant medications such as corticosteroids and immunosuppressants could not be studied. Furthermore, other factors may be associated with the risk of postoperative complications: nutritional status, and preexisting enteric fistula and intra-abdominal abscess. In the previous meta-analyses, the impact of those factors was not evaluated.

In conclusion, the impact of preoperative anti-TNF therapy on postoperative complications in patients with inflammatory bowel disease (IBD) remains unclear. Well-designed large prospective studies are needed to precisely evaluate the relationship between preoperative anti-TNF therapy and postoperative complications in patients with IBD.

Conflict of interest statement

None declared.

References


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