The impact of preoperative use of infliximab on postoperative complications in patients with Crohn’s disease

Dear Sir,

Postoperative complications may develop more frequently in Crohn’s disease (CD) than in other digestive diseases, because CD is frequently associated with possible risk factors for postoperative complications: impaired nutritional status, chronic corticosteroid and immunosuppressive medications, and preexisting sepsis such as enteric fistula and intra-abdominal abscess. Before the era of biologics, Yamamoto et al.1 found that septic complications such as anastomotic leak, intra-abdominal abscess, and enteric fistula were significantly associated with preoperative low albumin level, preoperative steroids use, abscess at the time of laparotomy, and fistula at the time of laparotomy. The intra-abdominal septic complication rate was 50% in patients with all of these four risk factors, 29% in patients with three risk factors, 14% in patients with two risk factors, 16% in patients with one risk factor, and 5% in patients with none of these risk factors.

In the era of biologics, infliximab is used to achieve clinical improvement and induce remission in patients with moderate-to-severe CD refractory to other treatments. Infliximab therapy has been shown to induce and maintain steroid-free disease remission, improve quality of life and decrease the rate of hospitalizations and surgeries.2 Patients receiving immunosuppressant medications, including biologic therapies, should be at increased risk of infections due to multiple effects on the immune system. In these circumstances, there have been increasing concerns regarding the safety of preoperative use of infliximab.

Several studies investigated the impact of infliximab on postoperative complications in patients with CD.3,4 Recently, a systematic review and meta-analysis of comparative cohort studies was conducted assessing postoperative complication rates in CD patients who were treated with anti-tumor necrosis factor antibodies within 3 months before surgery versus patients who were not.5 The primary outcome was overall complication rate within 1 month of surgery. Secondary outcomes included the rate of infectious and noninfectious complications. The meta-analysis concluded that preoperative infliximab treatment is associated with an increased risk of postoperative infectious complications, mostly nonlocal.

However, there have been several limitations in the studies analyzed in the meta-analysis.6 The number of patients in each study was relatively small. Many patients received concomitant medications such as steroids and immunosuppressants with infliximab. Further, other factors than infliximab use itself may be associated with the risk of postoperative complications: nutritional status, and preexisting enteric fistula and intra-abdominal abscess. If risk factors for postoperative infectious complications related to anastomosis can be more precisely identified, this is really useful information at the time of surgery. Surgeons should create a temporary covering stoma to protect anastomosis, or avoid anastomosis for patients with multiple risk factors. In the biologic era, we need large prospective studies to conclude on the impact of preoperative immunosuppressant medications including infliximab on the occurrence of postoperative complications.

References


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