SUPPLEMENT ARTICLE

Positioning biologics—A case-based discussion: Vedolizumab

Miles Sparrow

The Alfred Hospital and Monash University, Melbourne, Australia

In a case-based discussion, panel members were asked to provide the rationale and evidence for choosing between individual therapies in two challenging Crohn’s disease cases. The reasoning for choosing vedolizumab for each of these cases is now discussed.

A 23-year-old male theater nurse presented with extensive small bowel Crohn’s disease requiring resection of 43 cm of jejunum and an associated jeuno-transverse fistula after capsule endoscopy retention. Despite postoperative metronidazole and azathioprine, disease re-evaluation 6 months after surgery revealed significant recurrence on magnetic resonance enterography, and vedolizumab was commenced. After 1 year of 300 mg intravenous 8-weekly vedolizumab, the patient’s C-reactive protein had improved, but the patient continued to have significant radiological disease.

The recommendation to escalate to 4-weekly vedolizumab therapy was discussed. Vedolizumab monotherapy avoids the need for azathioprine combination therapy, thereby reducing the risk of lymphoma that is relevant to young male patient populations. Vedolizumab also minimizes the infection risk in this patient who is a health-care worker. Similarly, young patients travel frequently, including to developing countries with high tuberculosis risk, and vedolizumab does not increase the risk of reactivating or developing de novo tuberculosis, unlike an anti-tumor necrosis factor (TNF) agent. Despite an increasing therapeutic armamentarium in inflammatory bowel disease (IBD) our treatment principle remains to optimize each agent before switching class, especially when significant improvement with the initial dosing regimen was achieved, as was the case in this patient. Emerging data also support therapeutic drug monitoring of vedolizumab as a means of facilitating dose optimization with this agent. Recent data from the VICTORY consortium were presented supporting the use of vedolizumab in Crohn’s disease. Interestingly, in this multicenter US-based consortium, rates of mucosal healing at 12 months were higher in Crohn’s disease patients treated with vedolizumab, compared with anti-TNF-treated patients (HR 1.67, 95% CI 1.13–2.47), although outcomes were superior in patients with colonic rather than isolated small bowel disease. mucosal healing rates were identical in vedolizumab patients treated with monotherapy or combination therapy (43% vs 43%, respectively, HR 1.18, 95% CI 0.45–2.77).

A 39-year-old female patient of Indian ethnicity with ileocolonic Crohn’s disease requiring multiple induction courses of corticosteroids developed pancreatitis to azathioprine. She had ongoing endoscopically active disease, and extra-intestinal manifestations of arthropathy, again requiring corticosteroids. She wishes to get pregnant in the near future and then travel home to India with her baby.

The rationale for choosing vedolizumab as her biologic agent was as follows. Tuberculosis risk in India is moderately high, and the use of vedolizumab minimizes this risk. Despite prior perceptions, vedolizumab is efficacious for extra-intestinal manifestations of IBD, especially those driven by intestinal inflammation. In a recent cohort study of almost 300 patients from the GETAID group, vedolizumab was efficacious in inducing complete remission of arthropathies in almost 45% of patients. As always, safety is a key consideration when choosing between biologic therapies in IBD. In the VICTORY consortium, rates of serious adverse events were significantly lower in vedolizumab cohort compared with anti-TNF-treated patients (7.1% vs 13.1%, OR 0.51, 95% CI 0.32–0.82). The concern for this patient is the safety of vedolizumab in pregnancy; results from case series have been mixed, although largely reassuring. Further data are required from ongoing studies before the safety of vedolizumab in pregnancy can be confirmed.

References