Drugs – Real-World Outcomes

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Predictors of pancreatitis among patients with inflammatory bowel disease treated with vedolizumab: Observation from a large global safety database

SUPPORTING INFORMATION

In light of findings presented in this analysis, which were derived from a query of Takeda's Global Safety Database, we searched the literature for reported cases of pancreatitis in patients taking vedolizumab for the treatment of inflammatory bowel disease (IBD). To the best of our knowledge, only three such cases have been reported.[1-3] In the first, a 30-year-old male with moderate to severe ulcerative colitis (UC) receiving vedolizumab for induction and maintenance therapy with concurrent mesalamine and mercaptopurine treatment developed symptoms of pancreatitis immediately following the second vedolizumab dose.[3] Laboratory and MRI findings confirmed a diagnosis of acute pancreatitis. Vedolizumab was discontinued and no recurrence of pancreatitis was evident at 12 months of follow-up. As mesalamine and mercaptopurine have both been associated with the development of acute pancreatitis, the development of pancreatitis following the use of vedolizumab is confounded by the use of these concomitant medications.

In the second report, a 14-year-old female with refractory UC receiving vedolizumab with concomitant sulfasalazine developed symptoms of pancreatitis 5 days after the first vedolizumab dose.[2] After a 10-day period of fasting and enteral feeds, the pancreatitis had resolved; however, the symptoms returned 3 days after the second vedolizumab dose. Again, fasting and enteral feeds resolved the symptoms. In this case, comorbid rotavirus gastroenteritis and concomitant use of sulfasalazine, both of which have been associated with pancreatitis, confounds the case.

In the third report, a 20-year-old male with UC initiated and then discontinued vedolizumab for reasons unknown 3 months prior to the onset of acute pancreatitis.[1] The patient then reinitiated vedolizumab therapy 5 days prior to the development of acute pancreatitis. The patient recovered 4 weeks later. Medical history and use of concomitant medications were not reported for this case; however, it was noted that the patient had previously discontinued mesalamine treatment for IBD due to the development of pancreatitis prior to vedolizumab treatment. A thorough medical review of this case could not be performed due to the limited information available.

Overall, the small number of pancreatitis cases reported in the literature in patients with IBD taking vedolizumab is consistent with the relatively few patients reported to Takeda's Global Safety Database who had symptoms of serious pancreatitis.

Data from positive-rechallenge case reports were included in the analysis presented. In total, there were two positive-rechallenge case reports of pancreatitis in the safety database, where symptoms of pancreatitis started after vedolizumab was administered, resolved once vedolizumab treatment was stopped, and then appeared again when vedolizumab treatment was restarted. This is a very small number of cases relative to the number of patients with IBD treated with vedolizumab since market approval. In the first case, a spontaneous report of acute pancreatitis was reported for a 36-year-old female taking

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vedolizumab for the treatment of UC. Twenty-five days after receiving a fourth dose of vedolizumab, an MRI scan confirmed inflammation and atrophy of the pancreatic tail. A serum lipase concentration of 254 U/L was also measured. A second episode of acute pancreatitis was reported 16 days after receiving a fifth dose of vedolizumab. The patient reportedly did not consume alcohol and had no medical history of gallbladder disorders, hyperlipidemia, or pancreatitis. However, concomitant use of mesalazine and prednisone, drugs that both have risk of developing pancreatitis listed in the prescribing information or summary of product characteristics, were reported. Pancreatitis was also reported for a 56-year-old male during a post-marketing study. The patient experienced symptoms of pancreatitis 4 days after receiving the first dose of vedolizumab and again 5 days after the second dose of vedolizumab and was hospitalized on both occasions. There were no signs of cholelithiasis, bile duct dilatation, or choledocholithiasis; however, the patient had concurrent hypercholesterolemia and concomitantly took mesalazine, prednisone, and atorvastatin.

Confounding variables such as the concomitant use of mesalazine and prednisone, and the limited information on these cases, means a causal association between vedolizumab treatment and the development of pancreatitis could not be made.

References

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