

World Journal of *Clinical Cases*

World J Clin Cases 2019 August 26; 7(16): 2134-2412



Contents

Semimonthly Volume 7 Number 16 August 26, 2019

REVIEW

- 2134 Role of infrapatellar fat pad in pathological process of knee osteoarthritis: Future applications in treatment
Jiang LF, Fang JH, Wu LD

MINIREVIEWS

- 2143 Application of Newcastle disease virus in the treatment of colorectal cancer
Song H, Zhong LP, He J, Huang Y, Zhao YX

ORIGINAL ARTICLE**Basic Study**

- 2155 Reduced microRNA-451 expression in eutopic endometrium contributes to the pathogenesis of endometriosis
Gao S, Liu S, Gao ZM, Deng P, Wang DB

Case Control Study

- 2165 Application of self-care based on full-course individualized health education in patients with chronic heart failure and its influencing factors
Sun J, Zhang ZW, Ma YX, Liu W, Wang CY

Retrospective Study

- 2176 Predicting surgical site infections using a novel nomogram in patients with hepatocellular carcinoma undergoing hepatectomy
Tang TY, Zong Y, Shen YN, Guo CX, Zhang XZ, Zou XW, Yao WY, Liang TB, Bai XL
- 2189 Serological investigation of IgG and IgE antibodies against food antigens in patients with inflammatory bowel disease
Wang HY, Li Y, Li JJ, Jiao CH, Zhao XJ, Li XT, Lu MJ, Mao XQ, Zhang HJ
- 2204 Incidence of infectious complications is associated with a high mortality in patients with hepatitis B virus-related acute-on-chronic liver failure
Wang C, Ma DQ, Luo S, Wang CM, Ding DP, Tian YY, Ao KJ, Zhang YH, Chen Y, Meng ZJ

Clinical Trials Study

- 2217 R/S ratio in lead II, and the prognostic significance of red cell distribution width in acute coronary syndrome
Coşkun A, Eren SH

- 2227 Comparative analysis of APACHE-II and P-POSSUM scoring systems in predicting postoperative mortality in patients undergoing emergency laparotomy
Nag DS, Dembla A, Mahanty PR, Kant S, Chatterjee A, Samaddar DP, Chugh P

Observational Study

- 2238 TAZ and myostatin involved in muscle atrophy of congenital neurogenic clubfoot
Sun JX, Yang ZY, Xie LM, Wang B, Bai N, Cai AL

Prospective Study

- 2247 Effects of dual sofosbuvir/daclatasvir therapy on, chronic hepatitis C infected, survivors of childhood malignancy
El-Shabrawi MH, Sherief LM, Yakoot M, Kamal NM, Almalky MA, AbdElgawad MM, Mahfouz AA, Helmy S, Kamal EM, Attia D, El-Khayat HR

Randomized Controlled Trial

- 2256 Hypoallergenicity of a thickened hydrolyzed formula in children with cow's milk allergy
Rossetti D, Cucchiara S, Morace A, Leter B, Oliva S

SYSTEMATIC REVIEWS

- 2269 Surveillance and diagnosis of hepatocellular carcinoma: A systematic review
Pascual S, Miralles C, Bernabé JM, Irurzun J, Planells M

META-ANALYSIS

- 2287 Neuraxial adjuvants for prevention of perioperative shivering during cesarean section: A network meta-analysis following the PRISMA guidelines
Zhang YW, Zhang J, Hu JQ, Wen CL, Dai SY, Yang DF, Li LF, Wu QB

CASE REPORT

- 2302 Primary malignant melanoma of the biliary tract: A case report and literature review
Cameselle-García S, Pérez JLF, Areses MC, Castro JDFD, Mosquera-Reboredo J, García-Mata J
- 2309 Successful treatment of tubulointerstitial nephritis in immunoglobulin G4-related disease with rituximab: A case report
Eroglu E, Sipahioğlu MH, Senel S, Ertas SK, Savas S, Ozturk F, Kocyigit I, Tokgoz B, Oymak O
- 2316 Effectiveness of vedolizumab treatment in two different anti-tumor necrosis factor alpha refractory pouchitis: A case report
Cakir OO
- 2322 Clinical outcomes and safety of high-resolution manometry guided superficial partial circular muscle myotomy in per-oral endoscopic myotomy for Jackhammer esophagus: Two cases report
Choi YI, Kim KO, Park DK, Chung JW, Kim YJ, Kwon KA

- 2330** Cardiac arrhythmias and cardiac arrest related to mushroom poisoning: A case report
Li S, Ma QB, Tian C, Ge HX, Liang Y, Guo ZG, Zhang CD, Yao B, Geng JN, Riley F
- 2336** Role of abdominal drainage in bariatric surgery: Report of six cases
Liu Y, Li MY, Zhang ZT
- 2341** A patient misdiagnosed with central serous chorioretinopathy: A case report
Wang TY, Wan ZQ, Peng Q
- 2346** Large carotid body tumor successfully resected in hybrid operating theatre: A case report
Li MQ, Zhao Y, Sun HY, Yang XY
- 2352** A huge pancreatic lipoma mimicking a well-differentiated liposarcoma: A case report and systematic literature review
Xiao RY, Yao X, Wang WL
- 2360** Ulcerative colitis complicated with colonic necrosis, septic shock and venous thromboembolism: A case report
Zhu MY, Sun LQ
- 2367** Acute pancreatitis connected with hypercalcemia crisis in hyperparathyroidism: A case report
Ma YB, Hu J, Duan YF
- 2374** Treatment of invasive fungal disease: A case report
Xiao XF, Wu JX, Xu YC
- 2384** Hepatocellular carcinoma successfully treated with ALPPS and apatinib: A case report
Liu L, Li NF, Zhang Q, Lin L
- 2393** Pseudothrombus deposition accompanied with minimal change nephrotic syndrome and chronic kidney disease in a patient with Waldenström's macroglobulinemia: A case report
Mwamunyi MJ, Zhu HY, Zhang C, Yuan YP, Yao LJ
- 2401** *Ex vivo* revascularization of renal artery aneurysms in a patient with solitary kidney: A case report
Chen XY, Zhao JC, Huang B, Yuan D, Yang Y
- 2406** Malignant syphilis accompanied with neurosyphilis in a malnourished patient: A case report
Ge G, Li DM, Qiu Y, Fu HJ, Zhang XY, Shi DM

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Manabu Watanabe, MD, PhD, Full Professor, Division of Gastroenterology and Hepatology, Department of Internal Medicine, Toho University Medical Center, Ohashi Hospital, Tokyo 153-8515, Japan

AIMS AND SCOPE

World Journal of Clinical Cases (*World J Clin Cases*, *WJCC*, online ISSN 2307-8960, DOI: 10.12998) is a peer-reviewed open access academic journal that aims to guide clinical practice and improve diagnostic and therapeutic skills of clinicians.

The primary task of *WJCC* is to rapidly publish high-quality Case Report, Clinical Management, Editorial, Field of Vision, Frontier, Medical Ethics, Original Articles, Meta-Analysis, Minireviews, and Review, in the fields of allergy, anesthesiology, cardiac medicine, clinical genetics, clinical neurology, critical care, dentistry, dermatology, emergency medicine, endocrinology, family medicine, gastroenterology and hepatology, etc.

INDEXING/ABSTRACTING

The *WJCC* is now indexed in PubMed, PubMed Central, Science Citation Index Expanded (also known as SciSearch®), and Journal Citation Reports/Science Edition. The 2019 Edition of Journal Citation Reports cites the 2018 impact factor for *WJCC* as 1.153 (5-year impact factor: N/A), ranking *WJCC* as 99 among 160 journals in Medicine, General and Internal (quartile in category Q3).

RESPONSIBLE EDITORS FOR THIS ISSUE

Responsible Electronic Editor: *Ji-Hong Liu*
 Proofing Production Department Director: *Yun-Xiaojuan Wu*

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Semimonthly

EDITORS-IN-CHIEF

Dennis A Bloomfield, Sandro Vento

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

EDITORIAL OFFICE

Jin-Lei Wang, Director

PUBLICATION DATE

August 26, 2019

COPYRIGHT

© 2019 Baishideng Publishing Group Inc

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>

Effectiveness of vedolizumab treatment in two different anti-tumor necrosis factor alpha refractory pouchitis: A case report

Ozlem Ozer Cakir

ORCID number: Ozlem Ozer Cakir (0000-0002-5916-8049).

Author contributions: All of the contributions were made by the author.

Informed consent statement: Patient consent and IRB approval were obtained.

Conflict-of-interest statement: The author declares that there are no conflicts of interest.

CARE Checklist (2016) statement: The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

Open-Access: This article is an open-access article which was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>

Manuscript source: Unsolicited manuscript

Received: April 24, 2019

Peer-review started: May 8, 2019

First decision: May 31, 2019

Revised: June 18, 2019

Accepted: July 20, 2019

Ozlem Ozer Cakir, Department of Gastroenterology and Hepatology, Alanya Alaaddin Keykubat University, School of Medicine, Antalya 07425, Turkey

Corresponding author: Ozlem Ozer Cakir, MD, Assistant Professor, Doctor, Department of Gastroenterology and Hepatology, Alanya Alaaddin Keykubat University, School of Medicine, Kestel yerleşkesi, Antalya 07425, Turkey. tansozlem@yahoo.com
Telephone: +90-532-1754014

Abstract

BACKGROUND

Refractory pouchitis is a common cause of pouch failure, which may require surgical excision of the pouch or permanent diversion. We aimed to show the effect of vedolizumab on treatment of the patient with refractory pouchitis.

CASE SUMMARY

A 32-year-old male with pancolonic ulcerative colitis since the age of 25 with primary failure of infliximab and mesalamine and intolerance of azathioprine, underwent a total proctocolectomy with ileal pouch-anal anastomosis in 2012. He developed chronic diarrhea in 2014, which was watery, 30 per day and accompanied with blood and mucus affecting his quality of life.

CONCLUSION

Vedolizumab is safe and effective in the management of anti-tumor necrosis factor alpha refractory pouchitis.

Key words: Anti-tumor necrosis factor alpha; Refractory pouchitis; Vedolizumab; Ulcerative colitis

©The Author(s) 2019. Published by Baishideng Publishing Group Inc. All rights reserved.

Core tip: Vedolizumab, a humanized immunoglobulin G1 monoclonal antibody to $\alpha 4\beta 7$ integrin, has been shown to moderate gut lymphocyte trafficking with an efficacy in treatment of both Crohn's disease and ulcerative colitis. In our patient who had two different anti-tumor necrosis factor refractory pouchitis, the gut-specific immune modulation mediated by vedolizumab treatment resulted in good responses. This case is important because vedolizumab is the novel therapy for refractory pouchitis. However, further large and prospective studies are needed for efficacy and the underlying mechanisms of efficacy of vedolizumab in treatment of refractory pouchitis.

Article in press: July 20, 2019
Published online: August 26, 2019

P-Reviewer: Rocha R, Chiba T
S-Editor: Dou Y
L-Editor: Filipodia
E-Editor: Wu YXJ



Citation: Cakir OO. Effectiveness of vedolizumab treatment in two different anti-tumor necrosis factor alpha refractory pouchitis: A case report. *World J Clin Cases* 2019; 7(16): 2316-2321
URL: <https://www.wjnet.com/2307-8960/full/v7/i16/2316.htm>
DOI: <https://dx.doi.org/10.12998/wjcc.v7.i16.2316>

INTRODUCTION

Refractory pouchitis is a common cause of pouch failure, which may require surgical excision of the pouch or permanent diversion. Vedolizumab, a humanized immunoglobulin G1 monoclonal antibody to $\alpha 4\beta 7$ integrin, has been shown to moderate gut lymphocyte trafficking with an efficacy in treatment of both Crohn's disease and ulcerative colitis (UC)^[1,2]. Although tumor necrosis factor-alpha (TNF- α) inhibitors have been reported to be effective as treatment for pouchitis^[3], there is little data regarding the use of vedolizumab in refractory pouchitis^[4]. The effect of vedolizumab treatment on chronic antibiotic refractory pouchitis is very limited. Chronic antibiotic refractory pouchitis is a challenging complication in patients with UC who undergo proctocolectomy with ileal pouch-anal anastomosis. Chronic antibiotic refractory pouchitis occurs when patients do not respond to a 2-wk course of ciprofloxacin, metronidazole or rifaximin for pouchitis^[5].

CASE PRESENTATION

Chief complaints

We report on a 32-year-old male with pancolonic UC.

History of present illness

A 32-year-old male with pancolonic UC since the age of 25 with primary failure of infliximab and mesalamine and intolerance of azathioprine, underwent a total proctocolectomy with ileal pouch-anal anastomosis in 2012.

History of past illness

He developed chronic diarrhea in 2014, which was watery, 30 per day and accompanied with blood and mucus affecting his quality of life. He could not work. He lost a lot of weight. He had fallen from 55 kg to 43 kg during pouchitis. His body mass index was 15.2 kg/m². He used mesalamine 3 g orally, steroid intermittently, loperamide and loperamide orally three times daily.

Personal and family history

His family history was unremarkable.

Physical examination upon admission

His abdominal physical examination was normal.

Laboratory examinations

Laboratory work-up revealed erythrocyte sedimentation rate of 56 mm/h and C-reactive protein of 3.6 mg/dL with no liver function abnormalities. Autoimmune markers including IgG4, anti-nuclear antibody and anti-mitochondrial antibody were negative. His blood tests for hepatitis B virus, hepatitis C virus, and human immunodeficiency virus antibodies were negative. Stool studies for *Clostridium difficile*, viruses and bacteria were negative. Blood tests for Epstein-Barr virus and cytomegalovirus antibodies were negative.

Imaging examinations

An ileoscopy and pouchoscopy were performed that demonstrated normal proximal ileal mucosa, but there were diffuse edema, erythema and nodularity and multiple superficial and deep ulcers in the pouch. His pouchitis disease activity index score was 16. Biopsies obtained were negative for cytomegalovirus. An upper endoscopy was done at the same time to evaluate diarrhea, and it was normal. Duodenal biopsy was negative for the presence of celiac disease. Serum antibodies for celiac disease including anti-gliadin antibodies, endomysial antibodies and anti-transglutaminase antibodies were negative. Therefore, gluten restricted diet was not given to the patient. His chest X-ray was normal. Purified protein derivative skin test was 0 mm.

FINAL DIAGNOSIS

Chronic pouchitis.

TREATMENT

He was prescribed metronidazole 500 mg orally three times daily and ciprofloxacin 500 mg orally two times daily. But his symptoms did not improve. Then we added rifaximin 550 mg orally three times daily. We continued mesalamine 3000 mg orally two times rectally and loperamide three times daily. He also used probiotics. He continued to have diarrhea with blood and mucus 20 to 30 times per day. Then adalimumab was started at 160 mg, 80 mg and 40 mg subcutaneously at 0, 2, and every 2 wk, respectively. He reported improvement of diarrhea without blood 10 to 15 per day the first week of adalimumab treatment. However, this response decreased within 4 wk, and the diarrhea and weight loss increased. His pouchoscopy was the same as before treatment at 6 mo after the beginning of treatment. Therefore, we stopped adalimumab. We tested the patient again for other etiologies like infections that were negative. Finally, we decided to start vedolizumab. The patient was given 300 mg parenterally at 0, 2, and 6 wk then every 8 wk.

OUTCOME AND FOLLOW-UP

He reported improvement in clinical symptoms at 4 wk for frequency of diarrhea (six to eight per day) without blood and mucus. He did not have any abdominal complaints. A pouchoscopy at 6 wk and 15 wk after beginning vedolizumab demonstrated that there were less ulcers after 6 wk, and there was only one small superficial ulcer after 15 wk (Figure 1). A pouchoscopy before beginning vedolizumab treatment is shown in Figure 2. His laboratory tests including C-reactive protein, erythrocyte sedimentation rate and liver test were normal. He gained almost 9 kg during vedolizumab treatment, and his quality of life improved (he started to work again).

DISCUSSION

There is only one retrospective study on the efficacy of vedolizumab for refractory pouchitis of the ileo-anal pouch in the literature^[6]. This study suggested that vedolizumab is safe and effective for treatment of refractory pouchitis. The other studies found in the literature are case presentations and case series. These presentations showed us vedolizumab was a good choice for refractory pouchitis^[7-11]. The effects of vedolizumab for treatment of pouchitis is summarized in Table 1^[8-13]. We differentiated our case from other cases in the literature by taking an effective clinical and endoscopic response with vedolizumab treatment in two different anti-TNF alpha refractory pouchitis.

Vedolizumab, a monoclonal antibody, selectively blocks gut lymphocyte trafficking by interacting with $\alpha 4\beta 7$ heterodimer^[1]. There is severe infiltration of the mucosa by both innate and adaptive immune cells in active pouchitis. An increased proportion of mucosal dendritic cells expressing integrin $\beta 7$ in patients with pouch inflammation has been shown^[14]. The integrin signaling in the pathogenesis of this clinical condition of pouchitis may have a pathogenic role. Therefore, blockade of $\alpha 4\beta 7$ integrin with vedolizumab treatment might represent a promising therapeutic strategy for this clinical condition^[14].

Vedolizumab has been shown to be beneficial for the treatment of chronic antibiotic-refractory pouchitis^[15,16]. After 3mo of therapy with vedolizumab in patients with refractory pouchitis, the small case series of four patients had symptomatic and endoscopic improvements^[17].

Vedolizumab may be a new choice as a treatment option in patients with refractory pouchitis who showed no improvement with steroids and other biological therapies such as anti-TNFs. Future studies may show when to start vedolizumab and the advantages of vedolizumab therapy in patients with refractory pouchitis.

CONCLUSION

In our patient who had anti-TNF refractory pouchitis, the gut-specific immune

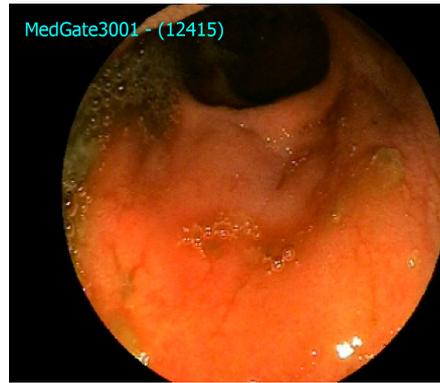


Figure 1 Fifteen weeks after vedolizumab treatment.

modulation mediated by vedolizumab treatment resulted in good responses. Further large and prospective studies are needed for the efficacy and the underlying mechanisms of efficacy of vedolizumab in treatment of refractory pouchitis.

Table 1 Effect of vedolizumab treatment of pouchitis in the literature

Country and reference	Number of patients	Age and gender	Features of inflammatory bowel disease	Outcomes
United States and reference 8	1	41-year-old female	She had pouchitis; 2 years later IPAA	Improvement in clinical symptoms and decreased frequency of bowel movements to four to six per day without blood or mucus were reported with 6 wk of vedolizumab treatment. There were no side effects
Italy and reference 9	1	33-year-old male	Anti-TNF-refractory chronic pouchitis and concomitant PSC	3 mo after ileostomy closure, chronic pouchitis occurred, refractory to antibiotics and anti-TNF. Thus, vedolizumab was started, leading to a marked improvement in clinical symptoms, which was maintained to the end of follow up (wk 34). There were no side effects
Germany and reference 10	20	12 male, 8 female; The median age was 22.5 years old	All of the patients were diagnosed with pouchitis	Improvement of clinical symptoms, the Oresland score and the PDAI score. There were no side effects
Greece and reference 11	1	22-year-old female	She was first diagnosed with pouchitis 1 year after surgery. Administered infliximab followed by adalimumab, both of which she discontinued after an early severe allergic reaction	Vedolizumab was subsequently initiated, together with a single course of antibiotics, and the patient experienced improvement in clinical symptoms and laboratory results with no documented relapse since then. A new pouchoscopy at wk 33 showed significant improvement
Greece and reference 11	1	22-year-old female	She was first diagnosed with pouchitis 1 year after surgery. Administered infliximab followed by adalimumab, both of which she discontinued after an early severe allergic reaction	Vedolizumab was subsequently initiated, together with a single course of antibiotics, and the patient experienced improvement in clinical symptoms and laboratory results with no documented relapse since then. A new pouchoscopy at wk 33 showed significant improvement
United States and reference 12	12	9 female, 3 male; The mean age was 41 years old	All of the patients had active pouchitis. Five patients (41.7%) used mesalamine, six (50.0%) took budesonide and four (33.3%) took prednisone prior to using vedolizumab. Eight (66.7%) had used anti-TNF agents prior to vedolizumab use	Eight (66.7%) patients demonstrated significant reduction in mPDAI symptom subscores before and after vedolizumab therapy
Portugal and reference 13	1	20-year-old female	She was diagnosed with pouchitis and a severe symptomatic autoimmune hemolytic anemia 1 year after IPAA	Patient reported symptom improvement at wk 12 and a pouchoscopy revealed only mucosal edema after 6 mo of therapy. Her inflammatory markers and hemoglobin normalized on repeat testing, allowing steroid withdrawal

IPAA: Ileal pouch-anal anastomosis; TNF: Tumor necrosis factor; PSC: Primary sclerosing cholangitis; PDAI: Pouchitis disease activity index; mPDAI: Modified pouchitis disease activity index.

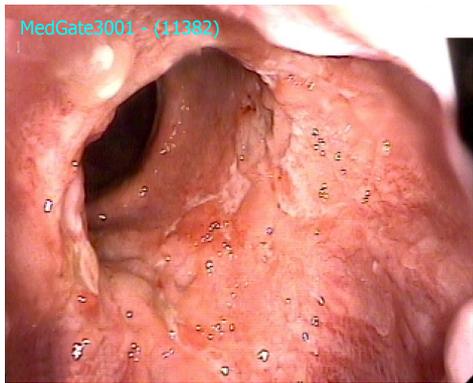


Figure 2 Before vedolizumab treatment.

REFERENCES

- 1 **Feagan BG**, Rutgeerts P, Sands BE, Hanauer S, Colombel JF, Sandborn WJ, Van Assche G, Axler J, Kim HJ, Danese S, Fox I, Milch C, Sankoh S, Wyant T, Xu J, Parikh A; GEMINI 1 Study Group. Vedolizumab as induction and maintenance therapy for ulcerative colitis. *N Engl J Med* 2013; **369**: 699-710 [PMID: 23964932 DOI: 10.1056/NEJMoa1215734]
- 2 **Sandborn WJ**, Feagan BG, Rutgeerts P, Hanauer S, Colombel JF, Sands BE, Lukas M, Fedorak RN, Lee S, Bressler B, Fox I, Rosario M, Sankoh S, Xu J, Stephens K, Milch C, Parikh A; GEMINI 2 Study Group. Vedolizumab as induction and maintenance therapy for Crohn's disease. *N Engl J Med* 2013; **369**: 711-721 [PMID: 23964933 DOI: 10.1056/NEJMoa1215739]
- 3 **Herfarth HH**, Long MD, Isaacs KL. Use of Biologics in Pouchitis: A Systematic Review. *J Clin Gastroenterol* 2015; **49**: 647-654 [PMID: 26084005 DOI: 10.1097/MCG.0000000000000367]
- 4 **Philpott J**, Ashburn J, Shen B. Efficacy of Vedolizumab in Patients with Antibiotic and Anti-tumor Necrosis Alpha Refractory Pouchitis. *Inflamm Bowel Dis* 2017; **23**: E5-E6 [PMID: 27930413 DOI: 10.1097/MIB.0000000000000992]
- 5 **Shen B**. Acute and chronic pouchitis--pathogenesis, diagnosis and treatment. *Nat Rev Gastroenterol Hepatol* 2012; **9**: 323-333 [PMID: 22508158 DOI: 10.1038/nrgastro.2012.58]
- 6 **Gregory M**, Weaver KN, Hoversten P, Hicks SB, Patel D, Ciorba MA, Gutierrez AM, Beniwal-Patel P, Palam S, Syal G, Herfarth HH, Christophi G, Raffals L, Barnes EL, Deepak P. Efficacy of Vedolizumab for Refractory Pouchitis of the Ileo-anal Pouch: Results From a Multicenter US Cohort. *Inflamm Bowel Dis* 2019 [PMID: 30810748 DOI: 10.1093/ibd/izz030]
- 7 **Schmid M**, Frick JS, Malek N, Goetz M. Successful treatment of pouchitis with Vedolizumab, but not fecal microbiota transfer (FMT), after proctocolectomy in ulcerative colitis. *Int J Colorectal Dis* 2017; **32**: 597-598 [PMID: 28097380 DOI: 10.1007/s00384-017-2761-4]
- 8 **Mir F**, Yousef MH, Partyka EK, Tahan V. Successful treatment of chronic refractory pouchitis with vedolizumab. *Int J Colorectal Dis* 2017; **32**: 1517-1518 [PMID: 28698974 DOI: 10.1007/s00384-017-2854-0]
- 9 **Coletta M**, Paroni M, Caprioli F. Successful Treatment With Vedolizumab in a Patient With Chronic Refractory Pouchitis and Primary Sclerosing Cholangitis. *J Crohns Colitis* 2017; **11**: 1507-1508 [PMID: 29106505 DOI: 10.1093/ecco-jcc/jjx090]
- 10 **Bär F**, Kühbacher T, Dietrich NA, Krause T, Stallmach A, Teich N, Schreiber S, Walldorf J, Schmelz R, Büning C, Fellermann K, Büning J, Helwig U; German IBD Study Group. Vedolizumab in the treatment of chronic, antibiotic-dependent or refractory pouchitis. *Aliment Pharmacol Ther* 2018; **47**: 581-587 [PMID: 29266360 DOI: 10.1111/apt.14479]
- 11 **Orfanoudaki E**, Foteiniannopoulou K, Koutroubakis IE. Use of vedolizumab in a patient with chronic and refractory pouchitis. *Ann Gastroenterol* 2018; **31**: 379 [PMID: 29720865 DOI: 10.20524/aog.2018.0243]
- 12 **Khan F**, Gao XH, Singh A, Philpott JR, Shen B. Vedolizumab in the treatment of Crohn's disease of the pouch. *Gastroenterol Rep (Oxf)* 2018; **6**: 184-188 [PMID: 30151202 DOI: 10.1093/gastro/goy014]
- 13 **Martins D**, Ministro P, Silva A. Refractory Chronic Pouchitis and Autoimmune Hemolytic Anemia Successfully Treated with Vedolizumab. *GE Port J Gastroenterol* 2018; **25**: 340-341 [PMID: 30480056 DOI: 10.1159/000486803]
- 14 **Landy J**, Al-Hassi HO, Ronde E, English NR, Mann ER, Bernardo D, Ciclitira PJ, Clark SK, Knight SC, Hart AL. Innate immune factors in the development and maintenance of pouchitis. *Inflamm Bowel Dis* 2014; **20**: 1942-1949 [PMID: 25222658 DOI: 10.1097/MIB.0000000000000182]
- 15 **Fazio VW**, Kiran RP, Remzi FH, Coffey JC, Heneghan HM, Kirat HT, Manilich E, Shen B, Martin ST. Ileal pouch anal anastomosis: analysis of outcome and quality of life in 3707 patients. *Ann Surg* 2013; **257**: 679-685 [PMID: 23299522 DOI: 10.1097/SLA.0b013e31827d99a2]
- 16 **Shen B**, Lashner B. Can we immunogenotypically and immunophenotypically profile patients who are at risk for pouchitis? *Am J Gastroenterol* 2004; **99**: 442-444 [PMID: 15056082 DOI: 10.1111/j.1572-0241.2004.04096.x]
- 17 **Shen B**, Achkar JP, Lashner BA, Ormsby AH, Remzi FH, Bevins CL, Brzezinski A, Petras RE, Fazio VW. Endoscopic and histologic evaluation together with symptom assessment are required to diagnose pouchitis. *Gastroenterology* 2001; **121**: 261-267 [PMID: 11487535]



Published By Baishideng Publishing Group Inc
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA
Telephone: +1-925-2238242
Fax: +1-925-2238243
E-mail: bpgoffice@wjgnet.com
Help Desk: <https://www.f6publishing.com/helpdesk>
<https://www.wjgnet.com>

