

be observed. In our patient, a biopsy was not performed since the abnormal test results improved in a few weeks.

Currently, there is no specific treatment to prevent or reduce the duration and severity of episodes. Treatment is based on symptom relief, until the episode resolves spontaneously. Cholestyramine and ursodeoxycholic acid have been used in the treatment of these patients for the relief of symptoms, with good response.⁵ Our patient has not experienced new episodes of cholestasis in the two years following his diagnosis.

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Ruth García-Romero^{a,*}, Laura Morlan-Herrador^a, Ignacio Ros-Arnal^a, María Dolores Miramar^b, Cristina Molera-Busons^c

^a Servicio de Gastroenterología y Nutrición Pediátrica, Hospital Infantil Miguel Servet, Zaragoza, Spain

^b Servicio de Genética, Hospital Infantil Miguel Servet, Zaragoza, Spain

^c Servicio de Gastroenterología, Hepatología y Nutrición Pediátrica, Hospital Sant Joan de Déu, Barcelona, Spain

* Corresponding author.

E-mail address: ruthgarciaromero@yahoo.es (R. García-Romero).

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Recurrent *Clostridium difficile* infection treated with bezlotoxumab in a liver transplant patient[☆]



Infección recurrente por *Clostridium difficile* tratada con bezlotoxumab en un paciente trasplantado hepático

Clostridium difficile infection (CDI) is the leading cause of hospital-acquired diarrhoea and a growing cause of community-acquired diarrhoea.¹ It has a broad clinical spectrum, and some patients with certain risk factors develop recurrent CDI (rCDI). These risk factors include: advanced age, immunosuppression, chronic kidney disease, concomitant use of antibiotics or of proton pump inhibitors (PPIs), prior episodes of CDI, and presence of hypervirulent strains such as ribotypes 027 or 244.^{1,2}

CDI treatment is based on antibiotics such as vancomycin, fidaxomicin or metronidazole; the latter is now considered inferior in terms of efficacy.¹ Faecal microbiota transplantation (FMT) also plays an important role,^{3,4} as it reduces recurrence by 85%–95%. Monoclonal antibodies represent a new approach to preventing recurrence. These include bezlotoxumab, which targets the micro-organism's toxin B, blocking its action and decreasing intestinal damage.⁵

We report the case of a 62-year-old man with a medical history of: hypertension; Barrett's oesophagus; liver transplantation in 2005 due to liver cirrhosis (caused by hepatitis

C virus and alcohol), with recurrence of hepatitis C in the transplant in 2006 (treated with direct-acting antivirals in 2015, which achieved a sustained viral response), evidence of advanced fibrosis in 2016 (12.5 kPa on elastography, METAVIR score F3), but with normal transplanted liver function parameters; osteoporosis; multifactorial chronic kidney disease (stage G3a according to the KDIGO guidelines); and two episodes of intraparenchymal cerebral haemorrhage in 2016 and 2017, with secondary vascular epilepsy, requiring prolonged hospital admission, including a stay in the intensive care unit (ICU). His regular treatment consisted of mycophenolate mofetil (500 mg/8 h), prednisone (5 mg/24 h), levetiracetam, pantoprazole and oral calcium.

In May 2017, in the last months of admission for cerebral haemorrhage, he had an initial episode of CDI that did not meet criteria to be considered severe. He was treated with a regular regimen of oral vancomycin (125 mg/6 h for 10 days), and his signs and symptoms resolved. Two weeks later, he had his first CDI recurrence, which was again treated with vancomycin, with a down-titration regimen at discharge. In October 2017, his second recurrence occurred; he was given fidaxomicin 200 mg/12 h for 10 days, responding favourably. Three months later, the third recurrence occurred and, after vancomycin treatment, underwent a first FMT. Despite this procedure, he had further recurrences in February and April 2018, and a decision was made to perform a second FMT. In the months that followed, the patient was admitted for new episodes, which were treated with vancomycin. With his eighth recurrence in March 2019, it was decided to administer bezlotoxumab during the course of treatment with vancomycin. It was administered in a single intravenous infusion for 60 min, at a dose of 10 mg/kg, with no need to make adjustments based on kidney or liver function. No short- or middle-term side effects were documented and, after 12 months, no new episodes of rCDI have occurred. It should

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be noted that the initial episode and all recurrences were mild, not meeting criteria for severity, and accompanied by diarrhoea and mild worsening of kidney function on every occasion.

Several risk factors for recurrence of CDI converged in our patient: advanced age, immunosuppression, chronic kidney disease, PPI use and numerous recurrent episodes with exhaustion of available treatment options, including two FMTs. Treatment with bezlotoxumab is indicated in patients 18 years of age and older receiving treatment for CDI and at high risk of recurrence⁵; in our case, these criteria were fulfilled. Bezlotoxumab is the first drug authorised to prevent rCDI, and the results of the clinical trials conducted⁵ confirm that it reduces recurrence rates. However, there is still no experience with repeat administration of the drug and there are still no data comparing it to other drugs.

Solid organ transplant recipients are under-represented in the majority of clinical trials and registry studies.³ They also have higher rates of morbidity and mortality due to their clinical condition, their treatments and factors such as more frequent hospitalisations and greater use of antibiotics.⁴ The choice of a specific treatment should be tailored to each patient's condition and risk of recurrence.

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- María Hernández^{a,*}, Nuria Saura^a, Sandra García^a, Raúl Velamazán^a, Daniel Abad^a, Gonzalo Hijos^a, Enrique Alfaro^a, Pablo Cañamares^b, Viviana Laredo^a, Sara Lorente^a
- ^a Servicio de Aparato Digestivo, Hospital Clínico Universitario Lozano Blesa, Zaragoza, Spain
- ^b Servicio de Aparato Digestivo, Hospital General San Jorge, Huesca, Spain
- * Corresponding author.
E-mail address: mhernandezainsa@gmail.com (M. Hernández).

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Pericardial effusion associated with mesalamine treatment in a patient with ulcerative colitis[☆]



Derrame pericárdico asociado al tratamiento con mesalazina en un paciente con colitis ulcerosa

Mesalazine (5-aminosalicylic acid or 5-ASA) is the standard treatment for the induction and maintenance of mild/moderate flare-ups of ulcerative colitis (UC). The anti-inflammatory mechanism is not known; it is postulated that there is an increase in the expression of peroxisome proliferator-activated receptors in the intestinal mucosa and the cyclooxygenase pathway is inhibited.¹ Mesalazine is a safe drug that is widely used in clinical practice. Various adverse effects have been described with a low incidence and variable severity, which may lead to the drug being withdrawn. The most frequent are: arthromyalgia, abdominal pain, nausea, diarrhoea and headache. These side effects

are not dose-dependent; they are due to hypersensitivity reactions and not to cumulative toxicity.¹

We present the case of a 53-year-old woman, with no relevant history, diagnosed with ulcerative proctitis at another medical centre in February 2020. Treatment with oral mesalazine (500 mg/8 h) and mesalazine foam (one nocturnal application) was started at that time. She was admitted to the centre in May 2020 due to a moderate outbreak of left UC, undergoing abdominal pelvic computed tomography (CT). The CT scan showed proximal extension of the disease to the sigmoid area and a small pericardial effusion (PE). She was transferred to our hospital after a lack of response to intravenous corticosteroids for 10 days (methylprednisolone 60 mg/24 h). Cytomegalovirus infection was ruled out by rectal biopsy as the cause of corticosteroid refractoriness and treatment was started with infliximab (5 mg/kg), maintaining oral mesalazine (4 g/24 h). Given her good clinical response and test results, she was discharged from hospital. She came to the emergency department two weeks later having had fever for three days, with evening peaks of up to 38.5 °C without other associated symptoms or abdominal symptoms, and without an increase in the number of stools or bleeding. Laboratory tests showed an elevation of acute phase reactants (C-reactive protein of up to 8.9 mg/dl). An urgent abdominal CT scan was performed which identified proctosigmoiditis without local complications and worsening of the pericardial effusion. The study was completed with a transthoracic echocardiogram with a finding of a moder-

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