

**Title:**  
**Right-side diverticulitis**

**Authors:**  
Víctor Blázquez Ávila, Sandra Borrego Rivas, Marcos Jiménez Palacios, Juan Sebastián Baldi Borelli, César Álvarez Fernández

DOI: 10.17235/reed.2024.10418/2024

Link: [PubMed \(Epub ahead of print\)](#)

Please cite this article as:

Blázquez Ávila Víctor, Borrego Rivas Sandra, Jiménez Palacios Marcos, Baldi Borelli Juan Sebastián, Álvarez Fernández César. Right-side diverticulitis. Rev Esp Enferm Dig 2024. doi: 10.17235/reed.2024.10418/2024.

*This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.*

## Right-side diverticulitis

Víctor Blázquez Ávila, Sandra Borrego Rivas, Marcos Jiménez Palacios, Juan Sebastián Baldi Borelli, César Álvarez Fernández

Department of Gastroenterology. Complejo Asistencial Universitario de León. León, Spain

Author for correspondence: Víctor Blázquez Ávila. Email: victor\_blazq\_avila@hotmail.com

Author contributions: Formal Analysis: V.B.Á.; Supervision: M.J.P.; Unknown: S.B.R., J.S.B.B., C.Á.F.

Keywords: Diverticulitis. Right-side Diverticulitis. WEIS.

Dear Editor,

Colonic diverticula develop at specific weak spots, where the vasa recta enter the colonic circular smooth muscle layer.<sup>1</sup> They are usually seen in the left colon. Their most common complication is diverticulitis, with mild cases resolving even without antibiotic therapy.<sup>2</sup>

Right-side diverticulitis develops in only 1.5% of cases, primarily on the anterior aspect of the cecum, proximal to the ileocecal valve (80%).<sup>4</sup> Given its low incidence, location, and the fact that it involves younger patients, a differential diagnosis is needed to rule out abdominal inflammatory conditions such as appendicitis or ileitis, as well as gynecological disorders.

Diverticulitis is diagnosed using imaging modalities. Computed tomography (CT) is the modality of choice,<sup>5</sup> and confirmation is required after clinical remission, primarily using colonoscopy.

## MATERIALS AND METHODS

We studied a series of 3 cases of patients initially diagnosed with acute, uncomplicated right-side diverticulitis who were admitted to the Gastroenterology Department, Hospital de León, from January to December 2023.

Our goal was to confirm a presumptive diagnosis of right-side diverticulitis using delayed endoscopy or barium enema to ascertain the presence of right-side diverticulosis and rule out other conditions manifesting with abdominal pain in the right iliac fossa.

## RESULTS

Cases 1 and 3 were admitted with an accurate diagnosis of right-side diverticulitis. Case 1 was confirmed by ambulatory colonoscopy, and case 3 was confirmed by barium enema because of a history of previous colonoscopy without findings.

All three patients required surgical assessment to rule out appendicular involvement. The imaging technique of choice was CT, using the WSES scale for severity grading.

Case 2 was diagnosed with right-side diverticulitis by means of ultrasonography, and its origin was later confirmed to be in the sigmoid colon.

The remaining clinical, laboratory, and diagnostic characteristics are listed in Table 1.

## CONCLUSIONS

Right colon diverticula are usually more common in Asian countries, and associated with a congenital origin.<sup>3</sup>

Acute right-sided diverticulitis affects younger individuals, has a low incidence of complications, is less common than left-sided diverticulitis, and its relevance resides in its differential diagnosis from other intra-abdominal conditions.

CT is the diagnostic test of choice, together with severity grading scales.

## REFERENCES

- 1- Meyers, M. A., Alonso, D. R., Gray, G. F., & Baer, J. W. (1976). Pathogenesis of bleeding colonic diverticulosis. *Gastroenterology*, 71(4), 577–583.
- 2- Serrano González J, Román García de León L, Galindo Jara P, Lucena de la Poza JL, Sánchez Movilla A, Colao García L, García Schiever JG, Varillas

Delgado D. Non-antibiotic treatment of uncomplicated acute diverticulitis is applicable and safe in our environment. A prospective multicenter study. *Rev Esp Enferm Dig.* 2024;116:140-147

- 3- Reichert, M. C., & Lammert, F. (2015). The genetic epidemiology of diverticulosis and diverticular disease: Emerging evidence. *United European gastroenterology journal*, 3(5), 409–418. <https://doi.org/10.1177/2050640615576676>.
- 4- Fischer, M. G., & Farkas, A. M. (1984). Diverticulitis of the cecum and ascending colon. *Diseases of the colon and rectum*, 27(7), 454–458. <https://doi.org/10.1007/BF02555537>
- 5- Sartelli, M., Weber, D.G., Kluger, Y. *et al.* 2020 update of the WSES guidelines for the management of acute colonic diverticulitis in the emergency setting. *World J Emerg Surg* 15, 32 (2020). <https://doi.org/10.1186/s13017-020-00313-4>

**Table 1.** Demographic, clinical and diagnostic characteristics of the study cases.

	CASE 1	CASE 2	CASE 3
<i>Patient demography and prior history</i>			
Sex	Female	Male	Female
Nationality	Spanish	Spanish	Spanish
Age	20 years	70 years	47 years
Risk factors (diverticulitis)	Smoking	Alcohol user Ex-smoker	Hypercholesterolemia
<i>Manifestations</i>			
Presentation on admission	Abdominal pain Location: right hypochondrium	Abdominal pain Location: right iliac fossa	Abdominal pain Location: right hypochondrium
Length of stay (days)	4	3	Outpatient management
<i>Diagnostic testing</i>			

CRP admission/discharge	77.9 -> 76.2 mg/L	76.9- > 73.7 mg/L	90 mg/L
Leucocyte count admission/discharge	12,100 -> 7,400 10 <sup>3</sup> /μL	13,400 -> ? 10 <sup>3</sup> /μL	12,200 10 <sup>3</sup> /μL
Diagnosis	CT	Ultrasound -> CT	Ultrasound
Surgical assessment prior to admission	Yes	Yes	Yes
Stool testing/ <i>Yersinia-Salmonella</i> serology. (Ileitis)	Negative	Not ordered	Not ordered
<i>Confirmation diagnosis</i>			
Prior colonoscopy	No	Yes. Polyposis	Yes, normal
Confirmation on discharge	Colonoscopy + In right colon.	Colonoscopy + In sigmoid colon (redundant colon)	Barium enema + In ascending and transverse colon