

World Journal of *Clinical Cases*

World J Clin Cases 2020 August 6; 8(15): 3136-3376



Contents

Semimonthly Volume 8 Number 15 August 6, 2020

OPINION REVIEW

- 3136 Impacts and challenges of United States medical students during the COVID-19 pandemic
Rolak S, Keefe AM, Davidson EL, Aryal P, Parajuli S
- 3142 Recent advances in the management of gastrointestinal stromal tumor
Ahmed M
- 3156 Medical research during the COVID-19 pandemic
AlNaamani K, AlSinani S, Barkun AN

REVIEW

- 3164 Progress of intravoxel incoherent motion diffusion-weighted imaging in liver diseases
Tao YY, Zhou Y, Wang R, Gong XQ, Zheng J, Yang C, Yang L, Zhang XM

MINIREVIEWS

- 3177 Typical and atypical COVID-19 computed tomography findings
Caruso D, Polidori T, Guido G, Nicolai M, Bracci B, Cremona A, Zerunian M, Polici M, Pucciarelli F, Rucci C, Dominici CD, Girolamo MD, Argento G, Sergi D, Laghi A
- 3188 Review of possible psychological impacts of COVID-19 on frontline medical staff and reduction strategies
Fu XW, Wu LN, Shan L

CLINICAL AND TRANSLATIONAL RESEARCH

- 3197 Overexpression of AMPD2 indicates poor prognosis in colorectal cancer patients *via* the Notch3 signaling pathway
Gao QZ, Qin Y, Wang WJ, Fei BJ, Han WF, Jin JQ, Gao X

ORIGINAL ARTICLE

Case Control Study

- 3209 Effect of motivational interviewing on postoperative weight control in patients with obstructive sleep apnea-hypopnea syndrome
Sun XH, Xue PS, Qi XX, Fan L

Retrospective Study

- 3218 Thalidomide for refractory gastrointestinal bleeding from vascular malformations in patients with significant comorbidities
Bayudan AM, Chen CH

- 3230** Colorectal adenocarcinoma patients with M1a diseases gain more clinical benefits from palliative primary tumor resection than those with M1b diseases: A propensity score matching analysis

Li CL, Tang DR, Ji J, Zang B, Chen C, Zhao JQ

- 3240** Surgical outcomes of bladder augmentation: A comparison of three different augmentation procedures

Sun XG, Wang RY, Xu JL, Li DG, Chen WX, Li JL, Wang J, Li AW

Clinical Trials Study

- 3249** Comparison of measurements of anterior chamber angle *via* anterior segment optical coherence tomography and ultrasound biomicroscopy

Yu ZY, Huang T, Lu L, Qu B

Observational Study

- 3259** Dydrogesterone treatment for menstrual-cycle regularization in abnormal uterine bleeding – ovulation dysfunction patients

Wang L, Guan HY, Xia HX, Chen XY, Zhang W

CASE REPORT

- 3267** Multi-organ IgG4-related disease continues to mislead clinicians: A case report and literature review

Strainiene S, Sarlauskas L, Savlan I, Liakina V, Stundiene I, Valantinas J

- 3280** *Campylobacter jejuni* enterocolitis presenting with testicular pain: A case report

Sanagawa M, Kenzaka T, Kato S, Yamaoka I, Fujimoto S

- 3284** Natural killer/T-cell lymphoma with intracranial infiltration and Epstein-Barr virus infection: A case report

Li N, Wang YZ, Zhang Y, Zhang WL, Zhou Y, Huang DS

- 3291** Successful management of tubular colonic duplication using a laparoscopic approach: A case report and review of the literature

Li GB, Han JG, Wang ZJ, Zhai ZW, Tao Y

- 3299** Hypothyroidism with elevated pancreatic amylase and lipase without clinical symptoms: A case report

Xu YW, Li R, Xu SC

- 3305** Two mechanically ventilated cases of COVID-19 successfully managed with a sequential ventilation weaning protocol: Two case reports

Peng M, Ren D, Liu YF, Meng X, Wu M, Chen RL, Yu BJ, Tao LC, Chen L, Lai ZQ

- 3314** Adult duodenal intussusception with horizontal adenoma: A rare case report

Wang KP, Jiang H, Kong C, Wang LZ, Wang GY, Mo JG, Jin C

- 3320** Isolated metachronous splenic multiple metastases after colon cancer surgery: A case report and literature review

Hu L, Zhu JY, Fang L, Yu XC, Yan ZL

- 3329** Imaging of hemorrhagic primary central nervous system lymphoma: A case report
Wu YW, Zheng J, Liu LL, Cai JH, Yuan H, Ye J
- 3334** Coexistence of ovarian serous papillary cystadenofibroma and type A insulin resistance syndrome in a 14-year-old girl: A case report
Yan FF, Huang BK, Chen YL, Zhuang YZ, You XY, Liu CQ, Li XJ
- 3341** Acute suppurative oesophagitis with fever and cough: A case report
Men CJ, Singh SK, Zhang GL, Wang Y, Liu CW
- 3349** Computed tomography, magnetic resonance imaging, and F-deoxyglucose positron emission computed tomography/computed tomography findings of alveolar soft part sarcoma with calcification in the thigh: A case report
Wu ZJ, Bian TT, Zhan XH, Dong C, Wang YL, Xu WJ
- 3355** COVID-19 with asthma: A case report
Liu AL, Xu N, Li AJ
- 3365** Total laparoscopic segmental gastrectomy for gastrointestinal stromal tumors: A case report
Ren YX, He M, Ye PC, Wei SJ
- 3372** Facial and bilateral lower extremity edema due to drug-drug interactions in a patient with hepatitis C virus infection and benign prostate hypertrophy: A case report
Li YP, Yang Y, Wang MQ, Zhang X, Wang WJ, Li M, Wu FP, Dang SS

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Dr. Romano is Professor of Medicine-Gastroenterology at the University of Campania “Luigi Vanvitelli” in Naples, Italy. Dr. Romano received his MD degree cum Laude at the University Federico II in Naples, Italy in 1980 and, after 4 year of Post-Graduate course, he became Specialist in Gastroenterology and Gastrointestinal Endoscopy. Dr. Romano’s research interest was on the cross-talk between H. pylori and gastric epithelial cells, and presently is mainly focused on H. pylori eradication therapy and on the role of nutraceuticals in gastrointestinal diseases. Dr. Romano is presently the Chief of the Endoscopy and Chronic Inflammatory Gastrointestinal Disorders Unit, and Teacher at the University of Campania “Luigi Vanvitelli” in Naples, Italy.

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases* (*WJCC*, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The *WJCC* is now indexed in Science Citation Index Expanded (also known as SciSearch®), Journal Citation Reports/Science Edition, PubMed, and PubMed Central. The 2020 Edition of Journal Citation Reports® cites the 2019 impact factor (IF) for *WJCC* as 1.013; IF without journal self cites: 0.991; Ranking: 120 among 165 journals in medicine, general and internal; and Quartile category: Q3.

RESPONSIBLE EDITORS FOR THIS ISSUE

Electronic Editor: *Yan-Xia Xing*, Production Department Director: *Yun-Xiaojian Wu*, Editorial Office Director: *Jin-Lei Wang*.

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, Bao-Gan Peng

EDITORIAL BOARD MEMBERS

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

PUBLICATION DATE

August 6, 2020

COPYRIGHT

© 2020 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 ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

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>



***Campylobacter jejuni* enterocolitis presenting with testicular pain: A case report**

Masahiro Sanagawa, Tsuneaki Kenzaka, Sayaka Kato, Ichiko Yamaoka, Shouichi Fujimoto

ORCID number: Masahiro Sanagawa 0000-0002-8430-9050; Tsuneaki Kenzaka 0000-0002-3120-6605; Sayaka Kato 0000-0002-3847-977X; Ichiko Yamaoka 0000-0002-8260-2341; Shouichi Fujimoto 0000-0002-0025-4030.

Author contributions: Sanagawa M managed the case and edited the manuscript. Kenzaka T assisted with the editing and correcting of the manuscript; Sanagawa M, Kenzaka T, Kato S, Yamaoka I, and Fujimoto S read and approved the final manuscript.

Informed consent statement: Informed written consent was obtained from the patient for publication of this report.

Conflict-of-interest statement: The authors declare that they have no competing interests.

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 that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution

Masahiro Sanagawa, Sayaka Kato, Department of Internal Medicine, Miyazaki Seikyo Hospital, Miyazaki 880-0824, Japan

Tsuneaki Kenzaka, Department of Internal Medicine, Hyogo Prefectural Tamba Medical Center, Hyogo 669-3495, Japan

Tsuneaki Kenzaka, Division of Community Medicine and Career Development, Kobe University Graduate School of Medicine, Hyogo 652-0032, Japan

Ichiko Yamaoka, Department of General Surgery, Miyazaki Seikyo Hospital, Miyazaki 880-0824, Japan

Shouichi Fujimoto, Department of Hemovascular Medicine and Artificial Organs, Faculty of Medicine, University of Miyazaki, Miyazaki 889-1692, Japan

Corresponding author: Masahiro Sanagawa, MD, Doctor, Department of Internal Medicine, Miyazaki Seikyo Hospital, 1171 Tenjinmae, Oshima-cho, Miyazaki 880-0824, Japan. msa440u@yahoo.co.jp

Abstract

BACKGROUND

Common symptoms of *Campylobacter* colitis include abdominal pain, vomiting, diarrhea, and fever, among others. However, *Campylobacter* colitis also has a high incidence of extraintestinal symptoms.

CASE SUMMARY

We report the case of a 51-year-old man who presented with bilateral testicular pain. A scrotal examination failed to reveal any physical findings, but the patient exhibited mild tenderness in the right lower abdomen. Computed tomography revealed ileocecal wall thickening. Post-admission, the patient developed diarrhea, and a stool culture was submitted; *Campylobacter jejuni* infection was confirmed. Testicular pain is known to be caused by appendicitis. Consequently, we suggest that *Campylobacter* colitis, which causes ileocecal inflammation, caused the testicular pain in this case.

CONCLUSION

In patients with testicular pain and no other objective findings, diseases such as *Campylobacter* colitis should be considered.

NonCommercial (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: March 15, 2020

Peer-review started: March 15, 2020

First decision: April 7, 2020

Revised: April 23, 2020

Accepted: July 14, 2020

Article in press: July 14, 2020

Published online: August 6, 2020

P-Reviewer: Dai Y, Sitkin S

S-Editor: Wang JL

L-Editor: A

E-Editor: Li JH



Key words: *Campylobacter*; Colitis; Testicular pain; Ileocecal inflammation; Related pain; Case report

©The Author(s) 2020. Published by Baishideng Publishing Group Inc. All rights reserved.

Core tip: In cases of testicular pain without other objective findings, ileocecal inflammation-causing diseases, such as *Campylobacter* colitis, should be considered in the differential diagnosis.

Citation: Sanagawa M, Kenzaka T, Kato S, Yamaoka I, Fujimoto S. *Campylobacter jejuni* enterocolitis presenting with testicular pain: A case report. *World J Clin Cases* 2020; 8(15): 3280-3283

URL: <https://www.wjgnet.com/2307-8960/full/v8/i15/3280.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v8.i15.3280>

INTRODUCTION

Campylobacter jejuni is the most common bacterial enteropathogen, and infections with this organism are typically accompanied by abdominal pain, vomiting, diarrhea, and fever. In contrast, *Campylobacter* colitis has been reported to cause various extraintestinal symptoms^[1]. Approximately 40% of patients with *Campylobacter* colitis present with musculoskeletal symptoms, 15% present with ocular symptoms, and 17% present with urinary tract symptoms. Urinary tract symptoms can include urethral inflammation, which may cause frequent urination and pain during urination^[1]. In this report, we document a case where *Campylobacter* colitis was accompanied by testicular pain.

CASE PRESENTATION

Chief complaint

A 51-year-old man presented to our hospital with bilateral testicular pain.

History of present illness

He had eaten raw chicken (*sashimi*, in Japanese) a few days before the onset of his symptoms. The testicular pain onset was gradual, beginning in the morning prior to his visiting the hospital. Throughout the day, his testicular pain had spread to his entire back and abdomen and had increased in intensity, leading him to visit our hospital that evening. He also experienced fever, headache, and general joint pain, but no nausea or diarrhea.

History of past illness

The patient did not have a history of significant past illnesses.

Physical examination

Physical examination revealed a body temperature of 38.1 °C, a heart rate of 109 beats/min, a blood pressure of 138/76 mmHg, and a respiratory rate of 20 breaths/min. He exhibited mild tenderness over a wide area, which centered in his right lower abdomen. However, his scrotum did not exhibit any abnormal findings, such as redness, swelling, warmth, or tenderness.

Laboratory examinations

Blood tests showed slight increases in his white blood cell count [12360 cells/ μ L, (neutrophils: 81.9%)] and C-reactive protein level (1.26 mg/L); no abnormalities were detected in the patient's urinalysis.

Imaging examinations

Abdominal computed tomography imaging revealed thickening of the ileocecal walls

(Figure 1), but his scrotal area appeared normal (Figure 2).

FINAL DIAGNOSIS

Campylobacter colitis.

TREATMENT

The patient was hospitalized and treated with fasting, fluid replacement, and 1 g of ceftriaxone, administered intravenously every 24 h. On the night of his admission, he developed watery diarrhea; a stool sample was submitted for culturing.

OUTCOME AND FOLLOW-UP

His fever and testicular pain resolved on post-admission day 3; he was discharged on day 6. After discharge, his stool culture results were reported and revealed the presence of *C. jejuni*, confirming the *Campylobacter* colitis diagnosis; his urine culture was negative for the presence of bacteria.

DISCUSSION

Here, we report, to the best of our knowledge, the first case of *Campylobacter* colitis accompanied by testicular pain. Clinicians should be particularly aware of the fact that *Campylobacter* colitis often presents with extraintestinal symptoms^[1]. The more common symptoms of the disease include abdominal pain, vomiting, diarrhea, and fever. In addition, about 40% of patients present with musculoskeletal symptoms, which may include Reiter's syndrome-like arthritis^[1]. Further, patients may manifest both eye and urinary tract symptoms^[1]. The urinary tract symptoms, caused by urethral inflammation, include increased urinary frequency and dysuria^[1]; however, previous reports have not suggested that this inflammation induces testicular pain.

The differential diagnosis for testicular pain includes testicular torsion, epididymitis/orchitis, testicular infarction, and scrotal edema^[2]. In addition, a few reports have documented testicular pain associated with appendicitis^[3-5], but none have reported testicular pain associated with ileocecal inflammation. The testicular pain associated with appendicitis is thought to be related to the tenth thoracic spinal nerve, which innervates both the appendix and the testes^[6]. In the present patient, because ileocecal inflammation is a hallmark of *Campylobacter* colitis, the inflammation may have spread from the ileocecal region to the appendix.

Given the absence of physical findings, such as scrotal tenderness, and the normal urinalysis results, we surmise that the patient's testicular pain was caused by inflammation of the appendix. This hypothesis is supported by the simultaneous resolution of the testicular pain and the resolution of his colitis symptoms, which included fever, abdominal pain, and diarrhea. The testicular pain appeared as an early symptom, before the onset of diarrhea. This is similar to the onset of appendicitis, which may include related (indirect) epigastric and/or testicular pain. *Campylobacter* colitis is often preceded by extraintestinal symptoms, such as fever and headache, and the onset of diarrhea is often delayed. The inflammation that is often present in the ileocecal area is presumed to cause the delayed onset of diarrhea^[7]. In the present patient, the reported testicular symptoms were bilateral, but the location of the pain may have been unclear because it was related, rather than direct, pain.

CONCLUSION

This is the first report of testicular pain associated with *Campylobacter* colitis. Given that *Campylobacter* colitis causes ileocecal inflammation, our case suggests that ileocecal inflammation may indirectly cause testicular pain. Thus, ileocecal inflammation should be considered in the differential diagnosis of patients with testicular pain.

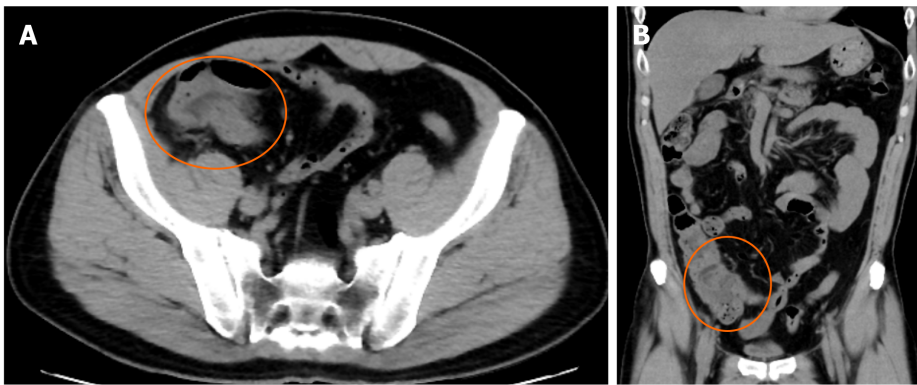


Figure 1 Computed tomography scans of the abdomen. Ileocecal wall thickening (circled) is evident in the horizontal and coronal views. A: Horizontal view; B: Coronal view.

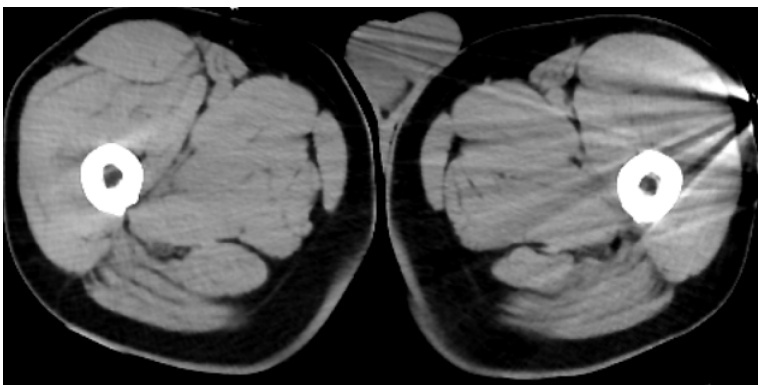


Figure 2 Computed tomography scans of the scrotum. Abnormal findings are not apparent.

REFERENCES

- 1 **Schönberg-Norio D**, Mattila L, Lauhio A, Katila ML, Kaukoranta SS, Koskela M, Pajarre S, Uksila J, Eerola E, Sarna S, Rautelin H. Patient-reported complications associated with *Campylobacter jejuni* infection. *Epidemiol Infect* 2010; **138**: 1004-1011 [PMID: [19887016](#) DOI: [10.1017/S0950268809991099](#)]
- 2 **Knight PJ**, Vassy LE. The diagnosis and treatment of the acute scrotum in children and adolescents. *Ann Surg* 1984; **200**: 664-673 [PMID: [6486916](#) DOI: [10.1097/0000658-198411000-00019](#)]
- 3 **Wilkins SA Jr**, Holder LE, Raiker RV, Wilson TH Jr. Acute appendicitis presenting as acute left scrotal pain: diagnostic considerations. *Urology* 1985; **25**: 634-636 [PMID: [4012959](#) DOI: [10.1016/0090-4295\(85\)90300-0](#)]
- 4 **Dienye PO**, Jebbin NJ. Acute appendicitis masquerading as acute scrotum: a case report. *Am J Mens Health* 2011; **5**: 524-527 [PMID: [21816859](#) DOI: [10.1177/1557988311415514](#)]
- 5 **Najafizadeh-Sari S**, Mehdizadeh H, Bagheri-Baghdasht MS, Manoochehry S. Suppurative appendicitis presenting acute scrotal pain: a rare condition may confuse surgeons. *J Surg Case Rep* 2017; **2017**: rjx215 [PMID: [29423152](#) DOI: [10.1093/jscr/rjx215](#)]
- 6 **Silen W**. Cope's early diagnosis of the acute abdomen. 22nd edition. Oxford: Oxford University Press 2010; 75-76
- 7 **Bennett JE**, Dolin R, Blaser MJ. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th edition. Philadelphia: Elsevier 2019; 2654



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA

Telephone: +1-925-3991568

E-mail: bpgoffice@wjgnet.com

Help Desk: <https://www.f6publishing.com/helpdesk>

<https://www.wjgnet.com>

