# World Journal of *Clinical Cases*

World J Clin Cases 2024 March 16; 12(8): 1382-1548





Published by Baishideng Publishing Group Inc

W J C C World Journal of Clinical Cases

#### Contents

#### Thrice Monthly Volume 12 Number 8 March 16, 2024

#### **EDITORIAL**

1382 Latest updates on structure and recommendations of cardiac rehabilitation programs in chronic heart failure

Kourek C, Briasoulis A, Magouliotis DE, Skoularigis J, Xanthopoulos A

#### 1388 Immunoglobulin A glomerulonephropathy: A review

El Labban M, Surani S

#### **ORIGINAL ARTICLE**

#### **Retrospective Study**

1395 Serum proteins differentially expressed in gestational diabetes mellitus assessed using isobaric tag for relative and absolute quantitation proteomics

Cao WL, Yu CP, Zhang LL

#### **Observational Study**

1406 Effect of comprehensive nursing on the quality of life and swallowing function in individuals diagnosed with ischemic stroke

Hu HF, Sang YF, Xiao YQ

#### **META-ANALYSIS**

Safety and effectiveness of butorphanol in epidural labor analgesia: A protocol for a systematic review and 1416 meta-analysis

Tang GC, He M, Huang ZZ, Cheng Y

#### **CASE REPORT**

1422 Left lower lobe sleeve resection for the clear cell variant of pulmonary mucoepidermoid carcinoma: A case report

Yu XH, Wang WX, Yang DS, Gong LH

1430 Lower extremity peripherally inserted central catheter placement ectopic to the ascending lumbar vein: A case report

Zhu XJ, Zhao L, Peng N, Luo JM, Liu SX

- Effect of foot reflexology on an infant with sensorineural hearing loss: A case report 1437 Lee YJ, Chen MQ, Dong J
- 1442 Development of immature ovarian teratoma after mature teratoma in a girl with familial ovarian teratoma: A case report

Ju UC, Kang WD, Kim SM



<b>.</b>	World Journal of Clinical Cases	
Conten	Thrice Monthly Volume 12 Number 8 March 16, 2024	
1448	Metastatic clear cell sarcoma of the pancreas: A rare case report	
	Liu YJ, Zou C, Wu YY	
1454	3M syndrome patient with a novel mutation: A case report	
	Luo MR, Dai SM, Li Y, Wang Q, Liu H, Gao P, Liu JY, Chen J, Zhao SJ, Yin GY	
1461	Appendiceal intussusception complicated by adenocarcinoma of the cecum: A case report	
	Long Y, Xiang YN, Huang F, Xu L, Li XY, Zhen YH	
1467	Malignant triton tumor in the abdominal wall: A case report	
	Yang HJ, Kim D, Lee WS, Oh SH	
1474	Multilocular thymic cysts can be easily misdiagnosed as malignant tumor on computer tomography: A case report	
	Sun J, Yang QN, Guo Y, Zeng P, Ma LY, Kong LW, Zhao BY, Li CM	
1481	Diagnosis of poorly differentiated adenocarcinoma of the stomach by confocal laser endomicroscopy: A case report	
	Lou JX, Wu Y, Huhe M, Zhang JJ, Jia DW, Jiang ZY	
1487	High-grade pancreatic intraepithelial neoplasia diagnosed based on changes in magnetic resonance cholangiopancreatography findings: A case report	
	Furuya N, Yamaguchi A, Kato N, Sugata S, Hamada T, Mizumoto T, Tamaru Y, Kusunoki R, Kuwai T, Kouno H, Kuraoka K, Shibata Y, Tazuma S, Sudo T, Kohno H, Oka S	
1497	Chronic infectious unilateral giant thyroid cyst related to diabetes mellitus: A case report	
	Liu JB, Zhang SL, Jiang WL, Sun HK, Yang HC	
1504	Multiple thoracic and abdominal foregut duplication cysts: A case report	
	Alsinan TA, Altokhais TI	
1510	Advanced cervix cancer patient with chemotherapy-induced grade IV myelosuppression achieved complete remission with cadonilimab: A case report	
	Zhu R, Chen TZ, Sun MT, Zhu CR	
1517	Detection of 4p16.3 deletion and 11p15.5p15.4 gain in a boy by comparative genomic hybridization array: A case report	
	Kaya I	
1523	Eccrine porocarcinoma in the tempus of an elderly woman: A case report	
	Wu ZW, Zhu WJ, Huang S, Tan Q, You C, Hu DG, Li LN	
1530	Analysis and monitoring of drug therapy in a patient with peptic ulcer complicated by infection: A case report	
	Gou YP, Huang Y, Chen L, Zheng W, Zheng YH	
1536	Primary gastroduodenal tuberculosis presenting as gastric outlet obstruction: A case report and review of literature	
	Ali AM, Mohamed YG, Mohamud AA, Mohamed AN, Ahmed MR, Abdullahi IM, Saydam T	



Conton	World Journal of Clinical Cases
Conten	Thrice Monthly Volume 12 Number 8 March 16, 2024
1544	Clinical manifestations and the prenatal diagnosis of trisomy 7 mosaicism: Two case reports <i>Hou F, Li Y, Jin H</i>

#### Contents

Thrice Monthly Volume 12 Number 8 March 16, 2024

#### **ABOUT COVER**

Peer Reviewer of World Journal of Clinical Cases, Makram Koubaa, MD, Assistant Professor, Department of Infectious Diseases, Hedi Chaker University Hospital, Sfax 3029, Tunisia. makram.koubaa@gmail.com

#### **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 abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, Current Contents®/Clinical Medicine, PubMed, PubMed Central, Reference Citation Analysis, China Science and Technology Journal Database, and Superstar Journals Database. The 2023 Edition of Journal Citation Reports® cites the 2022 impact factor (IF) for WJCC as 1.1; IF without journal self cites: 1.1; 5-year IF: 1.3; Journal Citation Indicator: 0.26; Ranking: 133 among 167 journals in medicine, general and internal; and Quartile category: Q4.

#### **RESPONSIBLE EDITORS FOR THIS ISSUE**

Production Editor: Hua-Ge Yu; Production Department Director: Xu Guo; Editorial Office Director: Jin-Lei Wang,

NAME OF JOURNAL World Journal of Clinical Cases	INSTRUCTIONS TO AUTHORS https://www.wjgnet.com/bpg/gerinfo/204
ISSN ISSN 2307-8960 (online)	GUIDELINES FOR ETHICS DOCUMENTS
LAUNCH DATE April 16, 2013	GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH
FREQUENCY Thrice Monthly	PUBLICATION ETHICS
EDITORS-IN-CHIEF Bao Gan Bang Salim Sugari, Jaray Tadayar Chudak, Gaorga Kantagaaraa	PUBLICATION MISCONDUCT
Maurizio Serati	ADTICLE DOCESSING CHADGE
https://www.wjgnet.com/2307-8960/editorialboard.htm	https://www.wjgnet.com/bpg/gerinfo/242
PUBLICATION DATE	STEPS FOR SUBMITTING MANUSCRIPTS
March 16, 2024	https://www.wjgnet.com/bpg/GerInfo/239
COPYRIGHT © 2024 Baishideng Publishing Group Inc	ONLINE SUBMISSION https://www.f6publishing.com

© 2024 Baishideng Publishing Group Inc. All rights reserved. 7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA E-mail: office@baishideng.com https://www.wjgnet.com



W J C C World Journal C Clinical Cases

# World Journal of

Submit a Manuscript: https://www.f6publishing.com

World J Clin Cases 2024 March 16; 12(8): 1461-1466

DOI: 10.12998/wjcc.v12.i8.1461

ISSN 2307-8960 (online)

CASE REPORT

# Appendiceal intussusception complicated by adenocarcinoma of the cecum: A case report

Yu Long, Yi-Ning Xiang, Fei Huang, Lei Xu, Xiao-Yun Li, Yun-Huan Zhen

Specialty type: Surgery

Provenance and peer review: Unsolicited article; Externally peer

reviewed.

Peer-review model: Single blind

#### Peer-review report's scientific quality classification

Grade A (Excellent): 0 Grade B (Very good): B Grade C (Good): C Grade D (Fair): 0 Grade E (Poor): 0

Received: November 19, 2023 Peer-review started: November 19, 2023

First decision: December 27, 2023 Revised: January 6, 2024 Accepted: February 18, 2024 Article in press: February 18, 2024 Published online: March 16, 2024



Yu Long, Fei Huang, Xiao-Yun Li, Yun-Huan Zhen, Department of Colorectal Surgery, The Affiliated Hospital of Guizhou Medical University, Guiyang 550001, Guzihou Province, China

Yu Long, Lei Xu, Department of Colorectal Surgery, Guizhou Medical University, Guiyang 550001, Guizhou Province, China

Yi-Ning Xiang, Department of Pathology, The Affiliated Hospital of Guizhou Medical University, Guiyang 550001, Guizhou Province, China

Corresponding author: Yun-Huan Zhen, PhD, Chief Physician, Department of Colorectal Surgery, The Affiliated Hospital of Guizhou Medical University, No. 16 Beijing Road, Yunyan District, Guiyang 550001, Guizhou Province, China. yunhuanzhen72@163.com

### Abstract

#### BACKGROUND

Appendiceal intussusception is a pathological condition in which the appendix is inverted into the cecum, which may cause symptoms that resemble those of other gastrointestinal disorders and may induce intestinal obstruction. The rarity of this case presentation is the co-occurrence of appendiceal intussusception and cecal adenocarcinoma, a combination that to our knowledge has not previously been reported in the medical literature. This case provides new insights into the complexities of diagnosing and managing overlapping pathologies.

#### CASE SUMMARY

A 25-year-old woman presented with persistent periumbilical pain and bloody stools. An initial biopsy showed cecal cancer; however, subsequent colonoscopy and computed tomography findings raised the suspicion of appendiceal intussusception, which was later confirmed postoperatively. This unique case was characterized by a combination of intussusception and adenocarcinoma of the cecum. The intervention included a laparoscopic right hemicolectomy, which led to the histopathological diagnosis of mucinous adenocarcinoma with appendiceal intussusception. The patient recovered well postoperatively and was advised to initiate adjuvant chemotherapy. This case highlights not only the importance of considering appendiceal intussusception in the differential diagnosis, but also the possibility of appendicitis and the atypical presentation of neoplastic lesions.

#### **CONCLUSIONS**

Physicians should consider the possibility of appendiceal intussusception in cases of atypical appendicitis, particularly when associated with neoplastic presenta-



Long Y et al. Appendiceal intussusception complicated by cecum adenocarcinoma

tion.

Key Words: Appendiceal intussusception; Appendicitis; Cecal cancer; Target signs; Misdiagnosis; Case report

©The Author(s) 2024. Published by Baishideng Publishing Group Inc. All rights reserved.

Core tip: This report presents a unique case of appendiceal intussusception associated with cecal adenocarcinoma, which has rarely been reported in medical literature. This case highlights the diagnostic challenges posed by unconventional polyps and the complexity of the radiological findings in which malignancies and signs of intussusception coexist. This report emphasizes the need for thorough clinical and radiological evaluation and illustrates the potential of integrating various diagnostic tools to achieve accuracy. In addition, cecal tumors may extend into the appendix, complicating the presentation of standard appendiceal intussusception and requiring careful review of preoperative imaging to guide surgical intervention and subsequent treatment strategies.

Citation: Long Y, Xiang YN, Huang F, Xu L, Li XY, Zhen YH. Appendiceal intussusception complicated by adenocarcinoma of the cecum: A case report. World J Clin Cases 2024; 12(8): 1461-1466 URL: https://www.wjgnet.com/2307-8960/full/v12/i8/1461.htm DOI: https://dx.doi.org/10.12998/wjcc.v12.i8.1461

#### INTRODUCTION

Intussusception is a rare clinical condition in which the appendix prolapses into the cecum, which may lead to intestinal obstruction, requiring prompt diagnosis and intervention. This case report documents an occurrence of appendiceal intussusception with cecal adenocarcinoma, a manifestation rarely described in the available medical literature. This report aimed to highlight the diagnostic challenges posed by concurrent pathological conditions and discuss the complexities of distinguishing benign and malignant lesions in preoperative evaluations.

In preparing this case report, we critically reviewed the literature using databases such as PubMed. Search terms included "intussusception", "cecal adenocarcinoma" and "intussusception with malignancy". Despite extensive investigation, there was a clear absence of reports of similar cases in which these circumstances occurred simultaneously, supporting the merits and novelty of this case. Therefore, this report aimed to increase the body of knowledge of this manifestation by detailing the diagnostic process and surgical findings that led to the discovery of this rare clinical condition.

Herein, we described a patient with recurrent abdominal pain and gastrointestinal bleeding that prompted a referral for suspected cecal cancer. This case highlights the urgent need to combine radiological signs and clinical symptoms in developing a comprehensive diagnostic approach. These clinical problems are addressed: the complexity of managing intussusception symptoms and signs of malignancy and the subsequent implications for surgical decisions. Based on our experiences in this case, we hypothesized that vigilance and multifaceted diagnostic strategies are essential for identifying such rare and complex cases, potentially improving patient outcomes through tailored interventions.

#### **CASE PRESENTATION**

#### Chief complaints

A 25-year-old woman presented with persistent abdominal pain and bloody stools. The patient had experienced recurrent periumbilical pain for 20 d, accompanied by bloody stools, diarrhea, nausea, and vomiting. During colonoscopy at another hospital, lesions were found in the ileocecal area, suggesting cecal cancer.

#### History of present illness

The patient had no pertinent current medical history.

#### History of past illness

The patient had no family history of intestinal disease.

#### Personal and family history

The patient had no pertinent personal or family history.

#### Physical examination

On examination, the patient was visibly distressed by abdominal pain. The most striking finding on physical examination



WJCC | https://www.wjgnet.com

was marked tenderness of the right lower quadrant of the abdomen. No visible or palpable mass was noted, and there were no signs of peritoneal irritation such as rebound tenderness or guarding.

#### Laboratory examinations

Laboratory tests showed a red blood cell concentration of  $2.72 \times 10^{12}$ /L and a hemoglobin concentration of 78 g/L; there were no other significant abnormalities.

#### Imaging examinations

A colonoscopy was performed at the referral hospital ten days prior to admission at our institution; that colonoscopy revealed a lesion in the ileocecal region. A biopsy was performed which revealed high-grade adenomatous dysplasia with focal malignant transformation, and the initial diagnosis was cecal cancer. After the patient was admitted to our institution, we performed an abdominal computed tomography (CT) with contrast, which showed significant thickening of the ileocecal wall. However, the appendix was not clearly visible, and the diagnosis of intussusception was ultimately missed. Retrospective analysis of the CT images revealed target signs, suggesting intussusception (Figure 1). A subsequent colonoscopy performed at our institution revealed a "finger-shaped" tumor in the cecal lumen (Figure 2). The patient underwent a biopsy of the tumor and the adjacent mucosa of the cecal wall. The pathology report of the tumor was initially misinterpreted as a hyperplastic polyp. Postoperatively, an examination led to the identification of an intussusception ischemic appendix (Figure 3). Simultaneously, a biopsy of the mucosa adjacent to the cecum wall confirmed the presence of a mucinous adenocarcinoma.

#### FINAL DIAGNOSIS

A diagnosis of appendiceal cecal intussusception with cecal mucinous adenocarcinoma was confirmed by postoperative histopathological examination. Tumor invasion into the muscle and subserous layers such as that seen in this case indicates locally advanced cancer, classified as pT3N1M0 or pIII. Phase A (Figure 4).

#### TREATMENT

The patient underwent laparoscopic right hemicolectomy on the fifth day after admission. Surgical procedures included resection of the involved ileocecal region and lymph node dissection. A total of 15 lymph nodes were collected, three of which tested positive for lymph node metastases.

#### OUTCOME AND FOLLOW-UP

The patient recovered smoothly and was discharged from the hospital seven days after surgery. Adjuvant chemotherapy was recommended and scheduled to be initiated in the oncology department three to four weeks after discharge.

#### DISCUSSION

Appendiceal intussusception was first discovered by McKidd in 1858, during an autopsy of a seven-year-old boy. The patient had experienced abdominal colic symptoms two months before death, and autopsy results revealed appendiceal intussusception caused by ascaris[1]. Collins et al[2] reviewed 71000 pathological specimens in 1963 and found only seven cases of appendiceal intussusception, with an incidence rate of only 0.01%. Although appendiceal intussusception can occur at any age, it is predominantly observed in adults, with the risk in women being twice that in men[3]. Reaching a definitive diagnosis of appendiceal intussusception was challenging in our patient. Initially, the patient was diagnosed with cecal cancer. However, we later discovered the coexistence of appendiceal and cecal intussusceptions, which altered our understanding of the case. Appendiceal cecal intussusception, caused by prolapse and rotation between the appendix and intestinal wall, can lead to intestinal obstruction. Symptoms such as abdominal pain, diarrhea, bloating, and vomiting may occur, making a misdiagnosis likely. Despite the rarity of appendiceal intussusception, physicians should be aware of the potential for this diagnosis and remain vigilant, carefully observing patients during the diagnostic process and subsequent treatment.

The etiology of appendiceal intussusception is complex and involves both anatomical and pathophysiological factors. Anatomical intussusception is characterized by an appendix located below the cecum or in the pelvic position, a thin mesoappendix, a healthy appendiceal wall, and autonomous peristalsis. Pathophysiological intussusception is caused by abnormalities in the appendiceal cavity, such as foreign bodies, fecaliths, worms, or lesions involving the appendiceal wall, including mucinous cysts, lymphoid hyperplasia, papillomas, polyps, adenocarcinoma, sarcoma, and endometriosis. There are also rare reports of cases in which the ligated remnant invaginates during appendectomy [4-9]. In our case, appendiceal intussusception was likely secondary to the ileocecal tumor acting as a lead point, which is in accordance with the potential of the ileocecal tumor to cause intussusception.



WJCC | https://www.wjgnet.com

Long Y et al. Appendiceal intussusception complicated by cecum adenocarcinoma



Figure 1 Preoperative computed tomography scan. Image shows a target sign of the right colon (orange arrow).



Figure 2 Colonoscopy findings. A "finger-like" tumor is seen in the cecum with a broad head, covered with an abnormal substance, and a tendency to bleed with palpation (white arrow).

According to McSwain's classification[10], appendiceal intussusception can be divided into five anatomical variations. Langsam et al[11] further simplified the classification into four types: Type I begins at the tip of the appendix, with the tip of the appendix as the intussusception and its proximal part invaginating into the cecum; Type II begins at the base of the appendix, with the base of the appendix and the cecum as the intussusception; Type III forms intussusception at the proximal end of the appendix and invaginates into the distal part; and type IV is a complete inversion of the appendix, accompanied by terminal ileum intussusception. Our patient had type IV appendiceal intussusception with complete inversion of the appendix, accompanied by cecal cancer, but without cecal intussusception. This condition is rare in clinical practice, and appendiceal intussusception is often overlooked. Patients may present with the typical symptoms of acute appendicitis, or with chronic intermittent abdominal pain, changes in bowel habits, and acute or chronic blood loss [12]. However, the abdominal pain in our patient was likely caused by appendiceal intussusception and localized swelling and inflammation associated with the tumor at the base of the appendix.

Appendiceal intussusception may present as a pedunculated or hyperplastic polyp during colonoscopy. In the present case, colonoscopy revealed an atypical polyp. When encountering such situations, physicians must consider whether cross-sectional imaging is required to rule out malignancies. In such cases, cross-sectional imaging studies such as CT or magnetic resonance imaging may provide more information, aiding in the accurate identification and assessment of the



Zaishideng® WJCC https://www.wjgnet.com



Figure 3 Colon specimen after surgery. The white arrow indicates the tumor and the orange arrow indicates the intussusception.



Figure 4 Tumor invasion into the muscle and subserous layers. The lesion of the polypoid bulge in the ileocecal region is the structure of the appendix intestinal wall, and the tissue layer is the serous layer, muscle layer, submucosal layer, and mucosal layer from medial to lateral. Adenocarcinoma build-up may be seen in the muscular layer (orange triangle).

possibility of appendiceal intussusception. Resecting the polyp without further examination may lead to complications, such as appendicitis or intestinal perforation, which can result in peritonitis[13]. The pre-operative imaging in our case demonstrated a space-occupying lesion in the ileocecal region, which, combined with the patient's clinical presentation and laboratory findings, raised concerns for a malignant process. After a comprehensive assessment of the patient's clinical data, a decision was made to proceed with surgical intervention, which led to the discovery and diagnosis of appendiceal intussusception concurrent with cecal adenocarcinoma.

#### CONCLUSIONS

In conclusion, appendiceal intussusception is a rare anatomical variant of the appendix, presenting symptoms similar to those of appendicitis, thus necessitating attention in the differential diagnostic process. The patient in the present case had adenocarcinoma of the cecum involving the appendix, with subsequent appendiceal intussusception. The cancer cells



Baisbideng® WJCC | https://www.wjgnet.com

Long Y et al. Appendiceal intussusception complicated by cecum adenocarcinoma

had affected the serosal and muscular layers of the invaginated appendix, which is an exceedingly unusual finding. Surgeons and radiologists must thoroughly understand the clinical manifestations and imaging characteristics of appendiceal intussusceptions. While the exact causal relationship between appendiceal intussusception and colorectal cancer in this case was initially unclear, after careful consideration of the clinical and surgical findings, we recognized that the ileocecal tumor likely contributed to the intussusception of the appendix. Future studies should focus on the potential link between appendiceal intussusception and the occurrence of colorectal cancer.

#### FOOTNOTES

**Author contributions:** Long Y and Xiang YN performed image acquisition and completed the manuscript; All authors contributed to this paper and approved the submitted version.

**Supported by** the National Natural Science Foundation of China, No. 82060440.

**Informed consent statement:** Informed written consent was obtained from the patient for publication of this report and any accompanying images.

**Conflict-of-interest statement:** The authors declare that the study was conducted without any business or financial relationships that could be interpreted as potential conflicts of interest.

**CARE Checklist (2016) statement:** The authors read the CARE Checklist (2016) and prepared and revised the manuscript based on 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 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: https://creativecommons.org/Licenses/by-nc/4.0/

#### Country/Territory of origin: China

**ORCID number:** Yu Long 0009-0007-5482-3538; Yi-Ning Xiang 0000-0001-8018-963X; Fei Huang 0009-0008-5275-1013; Lei Xu 0009-0008-4300-7671; Xiao-Yun Li 0000-0002-0102-2178; Yun-Huan Zhen 0000-0003-0809-0621.

#### REFERENCES

- 1 M'Kidd J. Case of Invagination of the Cœcum and Appendix. Edinb Med J 1859; 4: 793-796 [PMID: 29648219]
- 2 Collins DC. 71,000 human appendix specimens. A final report, summarizing forty years' study. Am J Proctol 1963; 14: 265-281 [PMID: 14098730 DOI: 10.1001/archneurpsyc.1959.02340170105012]
- 3 Chaar CI, Wexelman B, Zuckerman K, Longo W. Intussusception of the appendix: comprehensive review of the literature. Am J Surg 2009; 198: 122-128 [PMID: 19249733 DOI: 10.1016/j.amjsurg.2008.08.023]
- 4 Blondiaux E, Savoye-Collet C, Foulatier O, Lemoine F, Dacher JN. Appendiceal intussusception caused by a mucocele of the appendix: imaging findings. *Dig Liver Dis* 2007; 39: 1087 [PMID: 17983877 DOI: 10.1016/j.dld.2007.07.163]
- 5 **Karabulut R**, Sönmez K, Türkyilmaz Z, Yilmaz Y, Akyürek N, Başaklar AC, Kale N. Mucosa-associated lymphoid tissue lymphoma in the appendix, a lead point for intussusception. *J Pediatr Surg* 2005; **40**: 872-874 [PMID: 15937835 DOI: 10.1016/j.jpedsurg.2005.02.006]
- 6 **Kawamura YJ**, Toyama N, Kasamatsu T, Ota M, Konishi F. Intussusception of appendiceal adenoma mimicking invasive carcinoma. *Endoscopy* 2002; **34**: 749 [PMID: 12195340 DOI: 10.1055/s-2002-33566]
- 7 Mathew J, Aldean IM, Ghafar FA, Haboubi NY. Appendicular intussusception into a polyp. *Tech Coloproctol* 2004; 8: 113-115 [PMID: 15309650 DOI: 10.1007/s10151-004-0068-2]
- 8 **Moradi P**, Barakate M, Gill A, Farrow G. Intussusception of the veriform appendix due to endometriosis presenting as acute appendicitis. *ANZ J Surg* 2007; **77**: 758-760 [PMID: 17685953 DOI: 10.1111/j.1445-2197.2007.04232.x]
- 9 Takahashi M, Sawada T, Fukuda T, Furugori T, Kuwano H. Complete appendiceal intussusception induced by primary appendiceal adenocarcinoma in tubular adenoma: a case report. Jpn J Clin Oncol 2003; 33: 413-415 [PMID: 14523063 DOI: 10.1093/jjco/hyg076]
- 10 Mcswain B. Intussusception of the appendix: review of the literature and report of a case. *South Med J* 1941; **34**: 263-270 [DOI: 10.1097/00007611-194103000-00005]
- 11 Langsam LB, Raj PK, Galang CF. Intussusception of the appendix. Dis Colon Rectum 1984; 27: 387-392 [PMID: 6734362 DOI: 10.1007/BF02553007]
- 12 **Casteels M**, Eggermont E, Kerremans R, Ponnette E. Intussusception of the vermiform appendix: a preoperative diagnosis in an adolescent girl. *J Pediatr Gastroenterol Nutr* 1986; **5**: 159-162 [PMID: 3944740 DOI: 10.1097/00005176-198601000-00032]
- 13 Fazio RA, Wickremesinghe PC, Arsura EL, Rando J. Endoscopic removal of an intussuscepted appendix mimicking a polyp--an endoscopic hazard. Am J Gastroenterol 1982; 77: 556-558 [PMID: 7102638]

Raisbideng® WJCC | https://www.wjgnet.com



## Published by Baishideng Publishing Group Inc 7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA Telephone: +1-925-3991568 E-mail: office@baishideng.com Help Desk: https://www.f6publishing.com/helpdesk https://www.wjgnet.com

