

World Journal of *Clinical Cases*

World J Clin Cases 2020 December 26; 8(24): 6213-6545



MINIREVIEWS

- 6213 Role of gut microbiome in regulating the effectiveness of metformin in reducing colorectal cancer in type 2 diabetes

Huang QY, Yao F, Zhou CR, Huang XY, Wang Q, Long H, Wu QM

ORIGINAL ARTICLE

Retrospective Cohort Study

- 6229 Impact factors of lymph node retrieval on survival in locally advanced rectal cancer with neoadjuvant therapy

Mei SW, Liu Z, Wang Z, Pei W, Wei FZ, Chen JN, Wang ZJ, Shen HY, Li J, Zhao FQ, Wang XS, Liu Q

Retrospective Study

- 6243 Three-year follow-up of Coats disease treated with conbercept and 532-nm laser photocoagulation

Jiang L, Qin B, Luo XL, Cao H, Deng TM, Yang MM, Meng T, Yang HQ

- 6252 Virus load and virus shedding of SARS-CoV-2 and their impact on patient outcomes

Chen PF, Yu XX, Liu YP, Ren D, Shen M, Huang BS, Gao JL, Huang ZY, Wu M, Wang WY, Chen L, Shi X, Wang ZQ, Liu YX, Liu L, Liu Y

- 6264 Risk factors for *de novo* hepatitis B during solid cancer treatment

Sugimoto R, Furukawa M, Senju T, Aratake Y, Shimokawa M, Tanaka Y, Inada H, Noguchi T, Lee L, Miki M, Maruyama Y, Hashimoto R, Hisano T

- 6274 Cause analysis and reoperation effect of failure and recurrence after epiblepharon correction in children

Wang Y, Zhang Y, Tian N

Clinical Trials Study

- 6282 Effects of different acupuncture methods combined with routine rehabilitation on gait of stroke patients

Lou YT, Yang JJ, Ma YF, Zhen XC

Observational Study

- 6296 Application of endoscopic submucosal dissection in duodenal space-occupying lesions

Li XY, Ji KY, Qu YH, Zheng JJ, Guo YJ, Zhang CP, Zhang KP

- 6306 Early renal injury indicators can help evaluate renal injury in patients with chronic hepatitis B with long-term nucleos(t)ide therapy

Ji TT, Tan N, Lu HY, Xu XY, Yu YY

Prospective Study

- 6315** Neoadjuvant chemoradiotherapy plus surgery in the treatment of potentially resectable thoracic esophageal squamous cell carcinoma
Yan MH, Hou XB, Cai BN, Qu BL, Dai XK, Liu F

CASE REPORT

- 6322** Uterine rupture in patients with a history of multiple curettages: Two case reports
Deng MF, Zhang XD, Zhang QF, Liu J
- 6330** Pleural effusion and ascites in extrarenal lymphangiectasia caused by post-biopsy hematoma: A case report
Lin QZ, Wang HE, Wei D, Bao YF, Li H, Wang T
- 6337** Eighty-year-old man with rare chronic neutrophilic leukemia caused by CSF3R T618I mutation: A case report and review of literature
Li YP, Chen N, Ye XM, Xia YS
- 6346** Sigmoid colon duplication with ectopic immature renal tissue in an adult: A case report
Namgung H
- 6353** Paraplegia from spinal intramedullary tuberculosis: A case report
Qu LM, Wu D, Guo L, Yu JL
- 6358** Confocal laser endomicroscopy distinguishing benign and malignant gallbladder polyps during choledochoscopic gallbladder-preserving polypectomy: A case report
Tang BF, Dang T, Wang QH, Chang ZH, Han WJ
- 6364** Sclerosing stromal tumor of the ovary with masculinization, Meig's syndrome and CA125 elevation in an adolescent girl: A case report
Chen Q, Chen YH, Tang HY, Shen YM, Tan X
- 6373** Primary pulmonary malignant melanoma diagnosed with percutaneous biopsy tissue: A case report
Xi JM, Wen H, Yan XB, Huang J
- 6380** SRY-negative 45,X/46,XY adult male with complete masculinization and infertility: A case report and review of literature
Wu YH, Sun KN, Bao H, Chen YJ
- 6389** Refractory case of ulcerative colitis with idiopathic thrombocytopenic purpura successfully treated by Janus kinase inhibitor tofacitinib: A case report
Komeda Y, Sakurai T, Sakai K, Morita Y, Hashimoto A, Nagai T, Hagiwara S, Matsumura I, Nishio K, Kudo M
- 6396** Immunotherapies application in active stage of systemic lupus erythematosus in pregnancy: A case report and review of literature
Xiong ZH, Cao XS, Guan HL, Zheng HL

- 6408** Minimally invasive maxillary sinus augmentation with simultaneous implantation on an elderly patient: A case report
Yang S, Yu W, Zhang J, Zhou Z, Meng F, Wang J, Shi R, Zhou YM, Zhao J
- 6418** Congenital nephrogenic diabetes insipidus due to the mutation in *AVPR2* (c.541C>T) in a neonate: A case report
Lin FT, Li J, Xu BL, Yang XX, Wang F
- 6425** Primary gastric melanoma in a young woman: A case report
Long GJ, Ou WT, Lin L, Zhou CJ
- 6432** Extreme venous letting and cupping resulting in life-threatening anemia and acute myocardial infarction: A case report
Jang AY, Suh SY
- 6437** Novel conservative treatment for peritoneal dialysis-related hydrothorax: Two case reports
Dai BB, Lin BD, Yang LY, Wan JX, Pan YB
- 6444** Clinical characteristics of pulmonary cryptococcosis coexisting with lung adenocarcinoma: Three case reports
Zheng GX, Tang HJ, Huang ZP, Pan HL, Wei HY, Bai J
- 6450** Fracture of the scapular neck combined with rotator cuff tear: A case report
Chen L, Liu CL, Wu P
- 6456** Synchronous colonic mucosa-associated lymphoid tissue lymphoma found after surgery for adenocarcinoma: A case report and review of literature
Li JJ, Chen BC, Dong J, Chen Y, Chen YW
- 6465** Novel mutation in the *ASXL3* gene in a Chinese boy with microcephaly and speech impairment: A case report
Li JR, Huang Z, Lu Y, Ji QY, Jiang MY, Yang F
- 6473** Recurrent thrombosis in the lower extremities after thrombectomy in a patient with polycythemia vera: A case report
Jiang BP, Cheng GB, Hu Q, Wu JW, Li XY, Liao S, Wu SY, Lu W
- 6480** Status epilepticus as an initial manifestation of hepatic encephalopathy: A case report
Cui B, Wei L, Sun LY, Qu W, Zeng ZG, Liu Y, Zhu ZJ
- 6487** Delayed diagnosis of prosopagnosia following a hemorrhagic stroke in an elderly man: A case report
Yuan Y, Huang F, Gao ZH, Cai WC, Xiao JX, Yang YE, Zhu PL
- 6499** Oral myiasis after cerebral infarction in an elderly male patient from southern China: A case report
Zhang TZ, Jiang Y, Luo XT, Ling R, Wang JW
- 6504** Rare case of drain-site hernia after laparoscopic surgery and a novel strategy of prevention: A case report
Gao X, Chen Q, Wang C, Yu YY, Yang L, Zhou ZG

- 6511** Extracorporeal shock wave therapy treatment of painful hematoma in the calf: A case report
Jung JW, Kim HS, Yang JH, Lee KH, Park SB
- 6517** Takotsubo cardiomyopathy associated with bronchoscopic operation: A case report
Wu BF, Shi JR, Zheng LR
- 6524** Idiopathic adulthood ductopenia with elevated transaminase only: A case report
Zhang XC, Wang D, Li X, Hu YL, Wang C
- 6529** Successful endovascular treatment with long-term antibiotic therapy for infectious pseudoaneurysm due to *Klebsiella pneumoniae*: A case report
Wang TH, Zhao JC, Huang B, Wang JR, Yuan D
- 6537** Primary duodenal tuberculosis misdiagnosed as tumor by imaging examination: A case report
Zhang Y, Shi XJ, Zhang XC, Zhao XJ, Li JX, Wang LH, Xie CE, Liu YY, Wang YL

ABOUT COVER

Peer-Reviewer of *World Journal of Clinical Cases*, Dr. Adonis Protopapas is a gastroenterology Resident at the first Propaedeutic Department of Internal Medicine of the Aristotle University of Thessaloniki (Greece), located at the A.H.E.P.A Hospital. He earned his Bachelor's degree in 2015 from the Democritus University of Thrace, followed by three Master's of Science degrees, with specializations in clinic pharmacology, medical research methodology, and healthcare management. His research interests are mainly focused on the area of hepatology, although he also participates in various projects related to endoscopy and inflammatory bowel disease. He is particularly fascinated by research on cirrhosis and its complications. (L-Editor: Filipodia)

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

Production Editor: Ji-Hong Liu; Production Department Director: Xiang Li; Editorial Office Director: Jin-Lai 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

December 26, 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>



Sigmoid colon duplication with ectopic immature renal tissue in an adult: A case report

Hwan Namgung

ORCID number: Hwan Namgung
0000-0002-0783-7642.

Author contributions: Namgung H was the patient's colorectal surgeon, reviewed the literature and contributed to manuscript drafting.

Informed consent statement: Informed written consent was obtained from the patient for use of medical records for medical research purpose.

Conflict-of-interest statement: The author declares that he has no conflict of interest.

CARE Checklist (2016) statement: The author has 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 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

Hwan Namgung, Department of Surgery, Dankook University College of Medicine, Cheonan 31116, South Korea

Corresponding author: Hwan Namgung, MD, PhD, Professor, Department of Surgery, Dankook University College of Medicine, 119 Dandae-ro, Dongnam-gu, Cheonan 31116, South Korea.
gsnamgung@dankook.ac.kr

Abstract

BACKGROUND

Colonic duplication is a rare congenital anomaly. Many types of heterotopic tissue were identified within the wall of duplication. However, studies of ectopic immature renal tissue (EIRT) involving colon duplication in an adult have yet to be reported.

CASE SUMMARY

A 23-year-old woman visited our hospital with symptoms of recurrent abdominal pain and chronic constipation. Image analysis *via* abdomino-pelvic computed tomography, Gastrografin contrast study, and colonoscopy showed a blind and dilated bowel loop filled with fecal material located on the mesenteric side of the sigmoid colon. We established a diagnosis of sigmoid colon duplication and decided to perform a laparoscopic investigation. Segmental resection of the sigmoid colon with duplication was done. Microscopically, the duplicated segment showed all three layers of the bowel wall and EIRT in the wall of the duplication. The postoperative period was uneventful and the patient was discharged nine days after the surgery without complications. She has been doing well 12 mo after the follow-up period.

CONCLUSION

A comprehensive histopathologic examination for ectopic tissues or tumors is mandatory after resection of colon duplication.

Key Words: Colon duplication; Ectopic immature renal tissue; Case report

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

Core Tip: Many types of heterotopic tissue were identified within the wall of

the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>

Manuscript source: Unsolicited manuscript

Specialty type: Surgery

Country/Territory of origin: South Korea

Peer-review report's scientific quality classification

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

Received: July 1, 2020

Peer-review started: July 1, 2020

First decision: August 8, 2020

Revised: August 14, 2020

Accepted: November 12, 2020

Article in press: November 12, 2020

Published online: December 26, 2020

P-Reviewer: Al-Shouk AAAM, Yu B

S-Editor: Wang JL

L-Editor: A

P-Editor: Liu JH



duplication. We report an adult case of sigmoid colon duplication with ectopic immature renal tissue (EIRT). EIRT is a metanephric remnant arrested in an extra-renal site due to migratory defect and rarely results in extra-renal Wilms' tumors. Detection of EIRT warrants a proper histological analysis for differential diagnosis between benign EIRT and a true Wilms' tumor. This case highlights the importance of thorough histopathologic examination of ectopic tissues or tumors in colon duplications.

Citation: Namgung H. Sigmoid colon duplication with ectopic immature renal tissue in an adult: A case report. *World J Clin Cases* 2020; 8(24): 6346-6352

URL: <https://www.wjgnet.com/2307-8960/full/v8/i24/6346.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v8.i24.6346>

INTRODUCTION

Several studies have reported different types of heterotopic tissue within duplications. The common types of ectopic tissue include gastric mucosal, squamous, and pancreatic tissues^[1]. Ectopic immature renal tissue (EIRT) is a metanephric remnant arrested in an extra-renal site due to abnormal migration^[2]. We report a case of sigmoid colon duplication with EIRT. To our knowledge, this is the first report of EIRT occurring within the wall of a colonic duplication in an adult.

CASE PRESENTATION

Chief complaints

A 23-year-old woman visited our hospital with symptoms of recurrent abdominal pain and chronic constipation.

History of present illness

The patient's history reveals multiple hospitalizations during childhood for similar symptoms without a clear diagnosis.

History of past illness

The patient had a free previous medical history.

Personal and family history

No personal and family history was identified.

Physical examination

The physical examination was unremarkable except for tenderness in the right lower quadrant.

Laboratory examinations

All laboratory tests were in the normal range.

Imaging examinations

Abdomino-pelvic computed tomography (CT) showed a blind, dilated bowel loop filled with fecal material, directed to the right upper quadrant (RUQ) of the abdomen. This bowel loop communicated with the sigmoid colon and was located on the mesenteric side (Figure 1). The Gastrografin contrast study revealed a Y-shaped structure formed by the sigmoid colon and the duplicated colonic segment (Figure 2).

Further diagnostic work-up

Colonoscopy showed bifurcation of the colonic lumen at the sigmoid colon and the duplicated segment was filled with huge fecalomas (Figure 3).

Operative findings

We established a diagnosis of sigmoid colon duplication based on these findings and

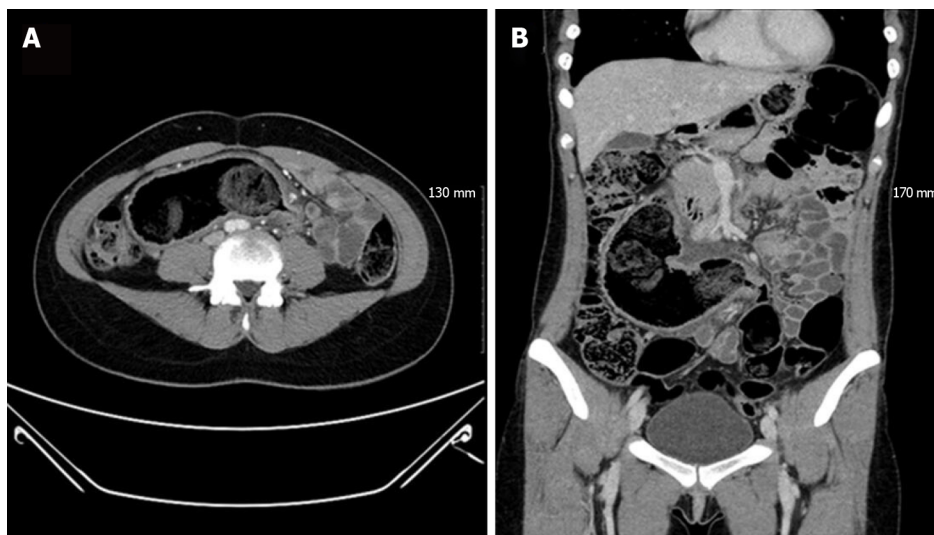


Figure 1 Abdomino-pelvic computed tomography showed a blind, dilated bowel loop filled with fecal material, directed to right upper quadrant of abdomen. A: Axial view; B: Coronal view.



Figure 2 Gastrografin colon study revealed a Y-shaped structure formed by the sigmoid colon and duplicated colonic segment.

decided to perform a laparoscopic examination. An approximately 30-cm-long, tubular bowel segment originating in the mesenteric side of the sigmoid colon was identified (Figure 4). This bowel segment was located under the mesocolon. It extended to the RUQ of the abdomen and ended near the duodenum. The surgery was converted to open surgery due to adhesion. Segmental resection of the sigmoid colon with duplication was performed.

Pathologic findings

Grossly, the duplicated segment, measuring 34 cm in length, was connected to the native sigmoid colon on the mesenteric side (Figure 5). Microscopically, the duplicated segment revealed all three layers of the bowel wall with scattered heterotopic tissue (Figure 6). Heterotopic tissue composed of fetal glomeruli and scattered tubules was detected under higher magnification, with immunoreactivity against vimentin, CK7, and PAX8. A diagnosis of EIRT associated with colonic duplication was made (Figure 7).

FINAL DIAGNOSIS

The final diagnosis was sigmoid colon duplication with benign EIRT.

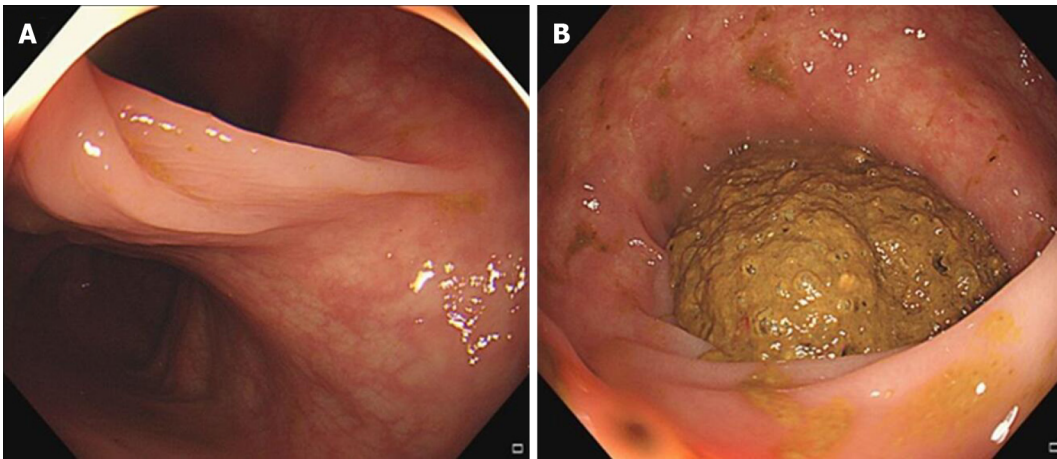


Figure 3 Colonoscopy images. A: Bifurcation of the colonic lumen; B: The duplicated segment was filled with huge fecalomas.



Figure 4 During the laparoscopic examination, an about 30 cm long, tubular bowel segment originating from the mesenteric side of the sigmoid colon was identified. SC: Sigmoid colon; DS: Duplication segment.

TREATMENT

Segmental resection of the sigmoid colon with duplication was performed.

OUTCOME AND FOLLOW-UP

The postoperative period was uneventful and the patient was discharged nine days after the surgery without complications. She has been doing well and was satisfied with the outcome 12 mo after the follow-up.

DISCUSSION

Alimentary tract duplication is a very rare congenital malformation that occurs most commonly in the small bowel^[3]. Colonic duplications account for only 6%-7% of all duplications, with the cecum the most common site^[4]. Various theories have been proposed, but the etiology of colonic duplication has not been established. This anomaly is often diagnosed in childhood, but some may go undiagnosed until adulthood^[5-7]. A combination of abdominal pain and intestinal obstruction symptoms is the most common clinical manifestation of colonic duplications. Patients with colonic duplication are often accompanied by vertebral and genitourinary anomalies^[3,8]. However, the patient in this case report did not have any other anomalies except colonic duplication.



Figure 5 Grossly, the duplicated segment, measuring 34 cm in length, was connected to the native sigmoid colon at the mesenteric side.

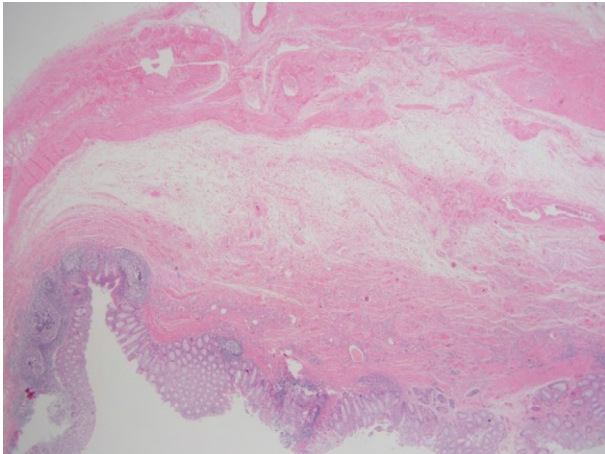


Figure 6 Microscopically, the duplication segment shows all 3 layers of bowel wall with scattered heterotopic tissue (Hematoxylin and eosin stain, ×12.5).

A preoperative diagnosis of colonic duplication is often difficult^[1,4]. General imaging modalities, such as plain abdominal radiography or ultrasonography, provide limited information. The diagnosis is best established with CT imaging or contrast enema. Although a large diverticulum may appear similar to tubular type colonic duplication, haustral marking on contrast enema may suggest duplication, as in this case.

Colonic duplication characteristically arises from the mesenteric border of the colon and may have direct communication^[1]. It has multiple bowel wall layers, including a smooth muscle coat and an epithelial mucosal lining. There have been reports of many types of heterotopic tissue identified within the duplications^[1,3]. The common types of ectopic tissue include gastric mucosal, squamous, and pancreatic tissue. Rarely, malignant change can occur in a colonic duplication^[9]. EIRT was found in the wall of the duplication in this case. EIRT is a metanephric remnant arrested in an extra-renal

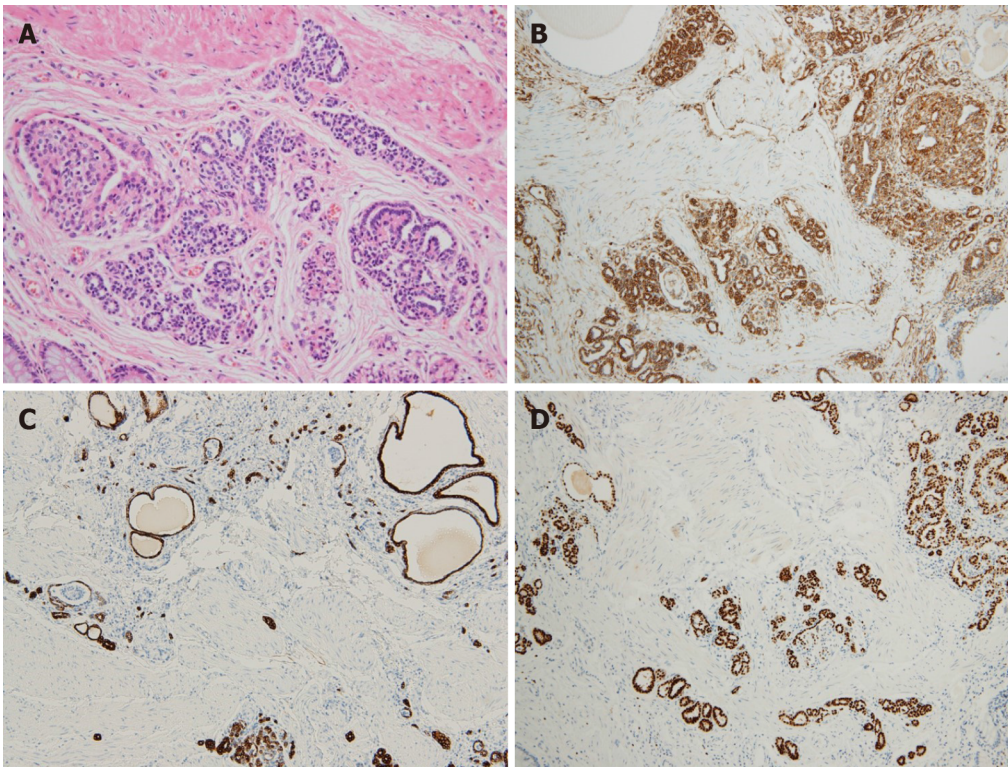


Figure 7 The heterotopic tissue is consistent with ectopic immature renal tissue. A: Higher magnifications view (Hematoxylin and eosin stain, × 200); B: Immunohistochemical staining (× 200) for vimentin; C: Immunohistochemical staining (× 200) for CK7; D: Immunohistochemical staining (× 200) for PAX8.

site due to a migratory defect and rarely can give rise to extra-renal Wilms tumors^[2]. EIRT was composed of fetal glomeruli and scattered tubules. EIRT is rarely reported and most cases are associated with teratoma. There has been report of the presence of EIRT within the wall of a colonic duplication in an 8-mo-old male child^[2], and this is the first report of EIRT found in the colonic duplication in an adult, to our knowledge. Whenever EIRT is found, a proper histological interpretation is mandatory for a differential diagnosis between benign EIRT and a true Wilms tumor^[2,10]. Because this case was not associated with teratoma and did not show any malignant features such as cellular atypia or nuclear pleomorphism, we plan to follow-up without further treatment. Surgical resection is the treatment of choice for symptomatic and asymptomatic colonic duplications to prevent complications and a tendency for malignant degeneration^[1,4]. Because duplications always share blood supply with the native colon and malignant changes can occur in the conjunction area, the extent of resection should include the duplication and a short segment of normal colon^[3].

CONCLUSION

Many types of heterotopic tissue and tumor were identified within the wall of colon duplication. EIRT was found in the wall of the duplication in this case. Treatment plan is modified based on histological findings. Therefore, a comprehensive histopathologic examination for ectopic tissues or tumors is mandatory after resection of colon duplication.

REFERENCES

- 1 Jezioreczak PM, Warner BW. Enteric Duplication. *Clin Colon Rectal Surg* 2018; **31**: 127-131 [PMID: 29487496 DOI: 10.1055/s-0037-1609028]
- 2 Mitra S, Singla N, Singh Sandhu G, Bal A. Ectopic Immature Renal Tissue Associated with Lipomeningomyelocele and Enteric Duplication Cyst: A Report of Two Cases. *Fetal Pediatr Pathol* 2016; **35**: 98-103 [PMID: 26882480 DOI: 10.3109/15513815.2015.1135495]
- 3 Ildstad ST, Tollerud DJ, Weiss RG, Ryan DP, McGowan MA, Martin LW. Duplications of the alimentary tract. Clinical characteristics, preferred treatment, and associated malformations. *Ann Surg*

- 1988; **208**: 184-189 [PMID: [3401062](#) DOI: [10.1097/00000658-198808000-00009](#)]
- 4 **Mourra N**, Chafai N, Bessoud B, Reveri V, Werbrouck A, Turet E. Colorectal duplication in adults: report of seven cases and review of the literature. *J Clin Pathol* 2010; **63**: 1080-1083 [PMID: [20924093](#) DOI: [10.1136/jcp.2010.083238](#)]
- 5 **Cheng KC**, Ko SF, Lee KC. Colonic duplication presenting as a huge abdominal mass in an adult female. *Int J Colorectal Dis* 2019; **34**: 1995-1998 [PMID: [31642971](#) DOI: [10.1007/s00384-019-03409-9](#)]
- 6 **Al-Jaroof AH**, Al-Zayer F, Meshikhes AW. A case of sigmoid colon duplication in an adult woman. *BMJ Case Rep* 2014; **2014** [PMID: [25096653](#) DOI: [10.1136/bcr-2014-203874](#)]
- 7 **Kiu V**, Liang JT. Laparoscopic resection of Y-shaped tubular duplication of the sigmoid colon: report of a case. *Dis Colon Rectum* 2010; **53**: 949-952 [PMID: [20485011](#) DOI: [10.1007/DCR.0b013e3181d96e5d](#)]
- 8 **Jung HI**, Lee HU, Ahn TS, Lee JE, Lee HY, Mun ST, Baek MJ, Bae SH. Complete tubular duplication of colon in an adult: a rare cause of colovaginal fistula. *Ann Surg Treat Res* 2016; **91**: 207-211 [PMID: [27757399](#) DOI: [10.4174/astr.2016.91.4.207](#)]
- 9 **Kang M**, An J, Chung DH, Cho HY. Adenocarcinoma arising in a colonic duplication cyst: a case report and review of the literature. *Korean J Pathol* 2014; **48**: 62-65 [PMID: [24627698](#) DOI: [10.4132/KoreanJPathol.2014.48.1.62](#)]
- 10 **Coli A**, Angrisani B, Chiarello G, Massimi L, Novello M, Lauriola L. Ectopic immature renal tissue: clues for diagnosis and management. *Int J Clin Exp Pathol* 2012; **5**: 977-981 [PMID: [23119116](#)]



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>

