Actas Médicas (Ecuador)
actasmedicas.ec

Jejunal adenocarcinoma in a young patient. A rare cancer diagnosed late. Case report.

Jorge Jiménez Barahona [1] *, Pablo Jiménez Benavides [1], María del Carmen Palacios del Campo [1].

1. Oncology Service, Alcívar Hospital, Guayaquil, Ecuador.

Received: February 11, 2026.
Accepted: June 18, 2026.
Published: June 19, 2026.
Editor: Dr. Mayra Ordoñez Martínez.

How to cite:
Jiménez J, Jiménez P, Palacios del Campo M. Jejunal adenocarcinoma in a young patient. A rare, late-diagnosed cancer. Case report. Actas Médicas (Ecuador) 2026; 14(1):139-148.

DOI: http://doi.org/10.61284/301
Alcívar Hospital.
ISSN-L: 2960-8309

*** Corresponding author**
Email: Jorge Jiménez Barahona, <jmjimenezbarahona@yahoo.es>
Address: Oncology Service, Alcívar Hospital. Coronel 2301 and Azuay. Guayaquil, Ecuador.
Postal Code: 090 306
Phone: [593] (4) 372 0100.

Abstract

Introduction: Jejunal adenocarcinoma is a rare malignant neoplasm that represents less than 3% of gastrointestinal tumors and presents a nonspecific clinical presentation, which leads to a diagnostic delay and an unfavorable prognosis in advanced stages.

Case report: We present the case of a 29-year-old male patient with a clinical picture of six months' evolution characterized by abdominal pain, melena, significant weight loss, and anemia.

Diagnostic Workshop: Initial endoscopic studies revealed no lesions. Subsequently, enteroscopy identified an exophytic tumor in the proximal jejunum with partial involvement of the intestinal lumen. Histopathological examination confirmed a moderately differentiated jejunal adenocarcinoma. Imaging studies demonstrated advanced disease with retroperitoneal and intraperitoneal lymph node conglomerates and invasion of adjacent structures, establishing criteria for unresectability, meaning the tumor was not surgically viable. Therefore, the patient was referred to a clinical oncologist for systemic treatment.

Discussion: Jejunal adenocarcinoma is associated with vague symptoms, difficulties in its diagnostic evaluation, and the absence of specific tumor markers, which explains its late diagnosis. Surgical resection with clear margins and regional lymphadenectomy is the treatment of choice in early stages. In advanced stages, management is primarily systemic or palliative. In recent years, immunotherapy has emerged as a potential therapeutic option in select subgroups, although the available evidence remains limited.

Conclusions: Jejunal adenocarcinoma presents a diagnostic and therapeutic challenge due to its low incidence and nonspecific clinical presentation. A high index of clinical suspicion and a timely diagnostic approach are essential to improve prognosis. Further studies are needed to define new therapeutic strategies, especially in advanced disease.

Keywords: Jejunal adenocarcinoma; Small bowel cancer; Late diagnosis.

Introduction

Small bowel tumors are rarely investigated in clinical practice due to their low frequency of occurrence, representing less than 3% of all gastrointestinal tumors, and only 11% to 25% of these are located in the jejunum [1, 2]. The annual incidence of small bowel cancer is 0.3 to 2.0 cases per 100,000 inhabitants, with a higher prevalence in African Americans and a higher incidence in men than in women. Diagnosis is most frequently made between ages 50 and 60, and incidence begins to increase after age 40. The current 5-year survival rate in the United States is 65% [3].

The most common malignant tumor of the small intestine is adenocarcinoma (33-45%), which preferentially arises in the duodenum and proximal jejunum, followed in frequency by carcinoid tumors, lymphomas, and sarcomas [4]. Jejunal adenocarcinoma is a rare type of cancer that is difficult to diagnose because its symptoms are vague and nonspecific, often leading to delayed diagnosis and, consequently, delayed treatment [5].

Several hypotheses explain the relatively low incidence of small bowel cancers. Unlike the large intestine, the small intestine's rapid transit time reduces exposure to luminal toxins and carcinogens. The presence of the enzyme benzopyrene hydroxylase in the intestinal mucosa facilitates detoxification and reduces the production of oxygen-free radicals in the small intestine [6].

Risk factors include lifestyle choices such as alcohol and tobacco use, and inadequate diets, including those low in fiber and high in processed meat and high-fructose beverages, which are associated with a higher likelihood of small bowel adenocarcinoma. Furthermore, several hereditary cancer syndromes, such as familial adenomatous polyposis and Lynch syndrome, can predispose individuals to developing adenocarcinomas. Pro-inflammatory conditions, such as Crohn's disease and celiac disease, can also predispose individuals to this type of cancer.

Small bowel cancer is often asymptomatic in its early stages. As the disease progresses, symptoms often appear and are nonspecific, so in most cases, diagnosis is delayed by an average of 6 to 8 months [7]. The most common symptoms are abdominal pain and weight loss. Bleeding, vomiting, nausea, and obstruction are less common and are generally observed in advanced stages.

The diagnosis includes the clinical presentation, which is often nonspecific, as already mentioned. Complementary examinations, such as direct visualization using video capsule endoscopy or enteroscopy, are also used, with enteroscopy preferred because it allows biopsies to be taken for histopathological examination. Imaging studies, such as non-contrast and contrast-enhanced computed tomography, have greater sensitivity and specificity in locally advanced and metastatic stages. Currently, there are no tumor markers that allow for accurate characterization, but carcinoembryonic antigen, CA 19.9, and CA 72.4 may be requested.

Capsule endoscopy has become the most sensitive and specific diagnostic method for small bowel disease. An increase in the diagnostic rate of small bowel tumors has been observed, with most detected in cases of gastrointestinal bleeding of unknown origin. Of these, 50–60% are malignant [7]. This technique has limitations in patients with intestinal obstruction or rapid transit and does not allow histological sampling.

The most common small bowel cancer, adenocarcinoma, is mainly located in the duodenum and proximal jejunum, whereas the other types are located more distally [8].

DOI (Hospital Alcívar): http://doi.org/10.61284/301

Small bowel adenocarcinomas present macroscopically as stenosing, ulcerative, infiltrative, or polypoid lesions. Histopathological evaluation shows well- to poorly differentiated tumors with a variable degree of mucin secretion [6].

The cornerstone of management is surgical resection, usually with a margin of at least 5 cm, and lymphadenectomy, which has a favorable oncological prognosis in early stages, with 5-year survival rates exceeding 85% [9]. Adjuvant chemotherapy has not been shown to improve survival, although a therapeutic response has occasionally been observed with regimens containing FOLFOX, as well as irinotecan and gemcitabine, in palliative chemotherapy [8].

Several poor prognostic factors in patients with adenocarcinomas include male sex, age over 55, distant metastases, poorly differentiated tumors, and T4 tumors. However, duodenal and/or ileal tumors have a worse prognosis than jejunal adenocarcinomas. In general, the prognosis for small bowel tumors is poor. The 5-year survival rate depends on the tumor stage: stage I, 50% to 60%; stage II, 39% to 55%; stage III, 10% to 40%; and stage IV, 3% to 5% [10].

Case report

Medical record

We present the case of a 29-year-old male with a history of hypertension. Family history: mother with breast cancer and a paternal uncle with gastric cancer. Lifestyle: smoking and alcohol use. He presented with a six-month history of abdominal pain accompanied by melena. He was seen at the clinic, where an upper gastrointestinal endoscopy revealed erosive gastritis, while a colonoscopy was negative. He was discharged with clinical treatment, resulting in partial improvement. The patient's condition deteriorated, with a weight loss of approximately 30 lbs, as well as asthenia and adynamia. One month ago, he experienced an exacerbation of his abdominal pain, requiring hospitalization and a repeat endoscopy. On this occasion, the endoscopist noted inflammatory findings in the gastric and duodenal mucosa. In this study, the duodenum and, in the jejunum, the initial loop were found to have an exophytic tumor occluding approximately 60% of their lumen. The biopsy result demonstrated the presence of a malignant tumor without specifying its type. The paraffin-embedded slides and blocks were sent to another pathology laboratory for review, which revealed a moderately differentiated adenocarcinoma (Figure 1).

DOI (Hospital Alcívar): http://doi.org/10.61284/301

Figure 1. Moderately differentiated adenocarcinoma in an endoscopic biopsy of the tumor in the jejunum (hematoxylin-eosin technique).

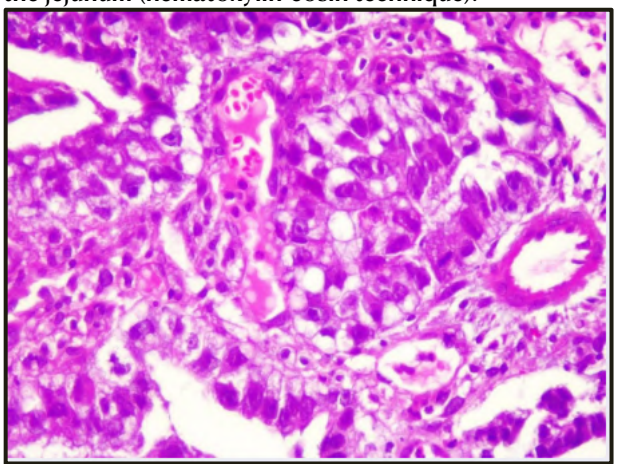
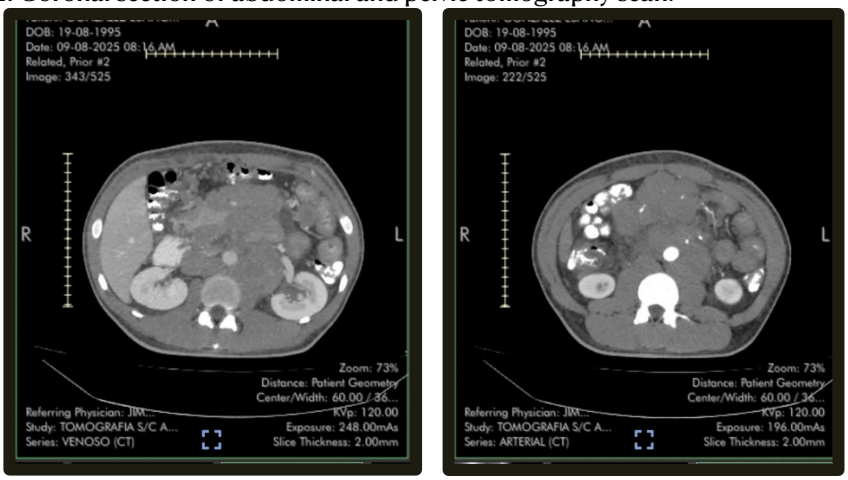


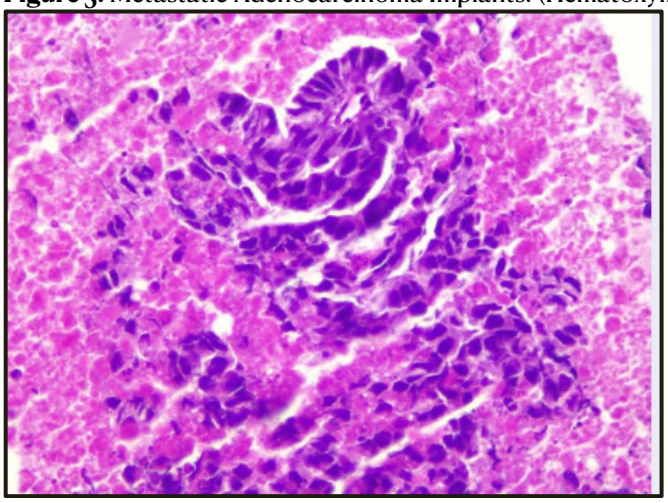
Figure 2. Coronal section of abdominal and pelvic tomography scan.



Laboratory tests: hematocrit 29.2%, hemoglobin 9.4 g/dL. Tumor markers CEA, CA 19.2, and CA 72.4 are within normal limits. Elevated LDH level (4174). Non-contrast and contrast-enhanced CT scan of the abdomen and pelvis: a large infiltrative lesion occupying a large part of the retroperitoneum and intraperitoneum due to a lymph node conglomerate invading vascular structures, pancreas, and left adrenal gland (arrows); consider lymphoproliferative disease (Figure 2). Physical examination: ambulatory. Weight: 60 kg, Height: 1.80 m, Body mass index: 19 kg/m^2. Generalized pallor. Lungs clear to auscultation. Abdomen with voluntary muscle guarding in the epigastrium and mesogastrium; a hard, swollen area was palpable in the mesogastrium. Bowel sounds present. A computed axial tomography-guided biopsy of the retroperitoneal-left lateral-aortic lymph node conglomerate was requested, and the histological findings revealed metastatic implants of an adenocarcinoma consistent with the primary one in the small intestine (Figure 3).

DOI (Hospital Alcívar): http://doi.org/10.61284/301

Figure 3. Metastatic Adenocarcinoma Implants. (Hematoxylin – eosin technique).



In light of the pathology report showing Stage IIIB: pT4, N2, M0, and considering the criteria for unresectability, the patient was referred to a clinical oncologist for neoadjuvant chemotherapy. He received two cycles of chemotherapy based on fluorouracil and oxaliplatin. At the end of his second cycle of chemotherapy, the patient died.

Discussion

Small bowel carcinoma is a rare malignant neoplasm that primarily comprises adenocarcinomas and carcinoid tumors. Small bowel adenocarcinoma accounts for 30-40% of cases and is predominantly located in the duodenum, whereas involvement of the jejunum and ileum is infrequent and often presents with complications such as obstruction, gastrointestinal bleeding, or perforation [11]. In this case, the patient presented with intestinal bleeding, which led to acute anemia.

The overall incidence of small bowel cancer is very low, less than 1 per 100,000 inhabitants, which limits its study, understanding, and preoperative diagnosis [8]. However, several series show an increase in the incidence rates of small bowel cancer in almost all age groups, and it is important to highlight the very young age of our patient [12-15].

Several series published worldwide indicate that the average age for diagnosis of this neoplasm is around 55 to 60 years old [1, 3]. In the present case, the patient is a 29-year-old male, an unusual age at onset that apparently delayed his diagnosis.

This neoplasm presents with nonspecific signs and symptoms, so in most cases its diagnosis is delayed; in the vast majority of cases, as in the one we published, it is made at an advanced stage of the disease.

The reasons for the diagnostic delay include nonspecific presentation, lack of awareness of the diagnosis, and inaccessibility of the small intestine for study [7]. In the present case, the patient initially underwent an upper endoscopic study that extended into the duodenum. In a second study, almost 6 months later, the endoscopy extended beyond the first loop of the jejunum, where the tumor was located.

Currently, complementary aids specifically designed for the study of the small intestine include video capsule endoscopy, small intestine imaging techniques (computed tomography enterography or magnetic resonance imaging), and device-assisted enteroscopy; the latter

DOI (Hospital Alcívar): http://doi.org/10.61284/301

allows a detailed evaluation of the surface of the small intestine with the possibility of taking biopsies, endoscopic treatments (hemostasis, polypectomy, removal of retained capsules, etc.) [12].

The treatment of these tumors is primarily based on wide surgical resection with clear margins, plus regional lymphadenectomy. If there is lymph node involvement, postoperative chemotherapy will be administered. Treatment depends on the tumor stage at the time of diagnosis. However, the use of neoadjuvant chemotherapy is not yet well-defined for these tumors. In unresectable adenocarcinomas, palliative chemotherapy is indicated, and if there is also extensive jejunal occlusion, palliative resection is indicated [14].

In the case presented, the histopathological diagnosis was made at a late stage. According to the CT scan, a large infiltrative lesion was identified, occupying a significant portion of the retroperitoneum and intraperitoneum, with a lymph node conglomerate invading vascular structures, the pancreas, and the left adrenal gland, meeting criteria for unresectability. A consultation was requested with the Clinical Oncology service regarding the possibility of neoadjuvant chemotherapy.

For small bowel adenocarcinoma, systemic therapy is established in advanced cases, particularly after progression on first-line fluorouracil- and oxaliplatin-based regimens. To date, several cytotoxic regimens have been described, including those containing irinotecan or taxanes; however, their efficacy is limited. Given the current situation, there is an urgent, unmet medical need for additional treatment options to manage this neoplasm. Several studies suggest that immunotherapy may be a potent strategy for a subset of patients with advanced small-bowel adenocarcinoma [16]. Large-scale randomized trials are required to confirm the utility of immunotherapy in the management of this neoplasm, as well as the role of biomarkers [17].

In any case, given the rarity of primary tumors of the small intestine, they constitute a real challenge for diagnosis and require a thorough medical history and a high initial index of suspicion to avoid delays in treatment [14].

Conclusion

Jejunal adenocarcinoma poses diagnostic challenges because of its low incidence. Delayed diagnosis can lead to complications and a low likelihood of cure; therefore, timely diagnosis significantly improves patient prognosis. Clinicians should be vigilant and well-informed about this rare condition. The consequences of underdiagnosis of small bowel adenocarcinoma and its impact on patient survival warrant further investigation.

Abbreviations

CEA: Carcinoembryonic antigen.
FOLFOX: Combination chemotherapy with: FOL: Folinic acid (also known as leucovorin or calcium folinate). F: Fluorouracil (often abbreviated as 5-FU). OX: Oxaliplatin

Supplementary information

Supplementary materials have not been declared.

Acknowledgments

Not declared.

Authors' contributions

Jorge Jiménez Barahona: Conceptualization, data curation, research, methodology, visualization, original draft writing.
Pablo Jiménez Benavides: Conceptualization, data curation, research, project management, and writing of the original draft.
María del Carmen Palacios del Campo: Conceptualization, data curation, research, project management, and writing of the original draft.
All authors read and approved the final version of the manuscript.

Financing
The study was self-funded by the authors.

Availability of data or materials
Not applicable.

Statements

Ethics committee approval and consent to participate
Not required for clinical cases.

Consent for publication
The authors have the patient's written permission for publication.

Conflicts of interest
The authors declare no conflicts of interest.

Use of generative AI
The authors declare that they used generative AI responsibly in the “Introduction” section, without replacing their critical thinking, expertise, and judgment. AI was used under supervision and control to develop the discussion section. The use of the AI tool guarantees the privacy and confidentiality of data and contributions, including published and unpublished manuscripts, as well as any personally identifiable information. The journal's policies, which permit the use of generative AI only in the introduction and discussion sections, have been followed. Only limited rights are granted to the AI to provide a service. The accuracy, integrity, and fairness of all AI-generated outputs were carefully reviewed and verified to ensure that the manuscript reflects an authentic and original contribution.

Author information

Jorge Jiménez Barahona, MD, PhD, Central University of Ecuador (Quito, 2003). Specialist in General Surgery, University of Guayaquil (Guayaquil, 2019). Specialist in Oncological Surgery, University of Guayaquil (Guayaquil, 2007). Attending physician in the Oncological Surgery Department at Alcívar Hospital.
Email: jmjimenezbarahona@yahoo.es
ORCID https://orcid.org/0009-0002-8397-4435

Pablo Jiménez Benavides, MD, University of Guayaquil (Guayaquil 2020). Resident Physician at Alcívar Hospital.
Email: pabjimenez@hotmail.com
ORCID https://orcid.org/0009-0007-4813-2247

María Del Carmen Palacios del Campo, MD, Catholic University of Santiago de Guayaquil (Guayaquil, 2021). Resident Physician at Alcívar Hospital.
Email: mdcpalacios1@gmail.com
ORCID https://orcid.org/0009-0003-1939-7853

Nadine Nalensska German Naranjo, Doctor from the Catholic University of Santiago de Guayaquil, (Guayaquil, 2023-2028).
Mail: nadine.german@ucsg.edu.ec
ORCID https://orcid.org/0009-0007-8014-431X

References

1. Yuri P, Utama ETP. A complete duplicated collecting system with giant ureterocele in adults: Case report. Int J Surg Case Rep. 2021 Feb;79:49-52. doi: 10.1016/j.ijscr.2020.12.083 . Epub 2021 Jan 2. PMID: 33429356; PMCID: PMC7809160.

2. Yang L, Jiang R, Tian Y, Yang Y, Yu W. Duplex collecting system with ectopic ureter in adults: a case report and literature review. Ann Med Surg (London). 2025 Aug 14;87(10):6753-6760. doi: 10.1097/MS9.0000000000003726 . PMID: 41181435; PMCID: PMC12577816.

3. Kozlov VM, Schedl A. Duplex kidney formation: developmental mechanisms and genetic predisposition. F1000Res. 2020 Jan 6;9:F1000 Faculty Rev-2. doi: 10.12688/f1000research.19826.1 . PMID: 32030122; PMCID: PMC6945105.

4. Houat AP, Guimarães CTS, Takahashi MS, Rodi GP, Gasparetto TPD, Blasbalg R, Velloni FG. Congenital Anomalies of the Upper Urinary Tract: A Comprehensive Review. Radiographics. 2021 Mar-Apr;41(2):462-486. doi: 10.1148/rg.2021200078. Epub 2021 Jan 29. Erratum in: Radiographics. 2021 Sep-Oct;41(5):E165. doi: 10.1148/rg.2021219009 . PMID: 33513074.

5. Didier RA, Chow JS, Kwatra NS, Retik AB, Lebowitz RL. The duplicated collecting system of the urinary tract: embryology, imaging appearances and clinical considerations. Pediatr Radiol. 2017 Oct;47(11):1526-1538. doi: 10.1007/s00247-017-3904-z . Epub 2017 Sep 21. PMID: 29043421.

6. Siomou E, Papadopoulou F, Kollios KD, Photopoulos A, Evagelidou E, Androulakakis P, Siamopoulou A. Duplex collecting system diagnosed during the first 6 years of life after a first urinary tract infection: a study of 63 children. J Urol. 2006 Feb;175(2):678-81; discussion 681-2. doi: 10.1016/S0022-5347(05)00184-9 . PMID: 16407023.

7. Lynch JO, Cox A, Rawal B, Shelmerdine S, Vasdev N, Patel A. Bilateral obstruction of bilaterally duplicated collecting systems requiring upper and lower moisture drainage. Ann R Coll Surg Engl. 2016 Apr;98(4):e55-8. doi: 10.1308/rcsann.2016.0077 . PMID: 26985816; PMCID: PMC5226026.

8. Dahl DS. Bilateral complete renal duplication with total obstruction of both lower pole collecting systems. Urology. 1975 Dec;6(6):727-9. doi: 10.1016/0090-4295(75)90806-7 . PMID: 1202724.

9. Eftekharzadeh S, Aghababian A, Abdulfattah S, Kye NJ, Mittal S, Long CJ, Weiss D, Srinivasan AK, Shukla AR. Ureteroureterostomy as Definitive Intervention for Duplex Anomalies: A Mid-Term Analysis. Urology. 2025 Oct;204:159-163. doi: 10.1016/j.urology.2025.05.028 . Epub 2025 May 20. PMID: 40403981.

10. Barrieras D, Lapointe S, Houle H. Is common sheath extravesical reimplantation an effective technique to correct reflux in duplicated collecting systems? J Urol. 2003 Oct;170(4 Pt 2):1545-7; discussion 1547. doi: 10.1097/01.ju.0000084149.02826.64 . PMID: 14501656.

11. Rodriguez MV, Pena P, Vargas E, Yankovic F, Reed F, Ovalle JR, Lopez PJ, Braga LH, Prieto JC. Open distal ureteroureterostomy for non-refluxing duplicated collecting system in

children: Multicentric study and mid-term outcomes. J Pediatr Urol. 2024 Dec;20(6):1166-1173. doi: 10.1016/j.jpurol.2024.08.005 . Epub 2024 Aug 13. PMID: 39218731.

12. Nguyen QT, Le DA, Nguyen KA, Nguyen TLV, Dang TT, Nguyen LT. One Trocar-Assisted Retroperitoneoscopic Ureteroureterostomy for Ureteral Duplication. J Endourol. 2024 Oct;38(10):984-990. doi: 10.1089/end.2024.0188 . Epub 2024 Aug 12. PMID: 39049743.

13. Olguner M, Akgür FM, Türkmen MA, Siyve S, Hakgüder G, Ateş O. Laparoscopic ureteroureterostomy in children with a duplex collecting system plus obstructed ureteral ectopia. J Pediatr Surg. 2012 Apr;47(4):e27-30. doi: 10.1016/j.jpedsurg.2011.12.010 . PMID: 22498412.

14. Bracci U, Miano L, Laurenti C. Ureteroureterostomy in complete ureteral duplication. Eur Urol. 1979;5(6):347-51. doi: 10.1159/000473152 . PMID: 467470.

15. Yu B, Li L, Fan Y. A comparative study on the efficacy of laparoscopic ureteroureterostomy versus single ureteral bladder reimplantation in treating pediatric complete renal duplication. Pediatr Surg Int. 2024 Nov 27;41(1):8. doi: 10.1007/s00383-024-05908-5 . PMID: 39601980.

16. Chacko JK, Koyle MA, Mingin GC, Furness PD 3rd. Ipsilateral ureteroureterostomy in the surgical management of the severely dilated ureter in ureteral duplication. J Urol. 2007 Oct;178(4 Pt 2):1689-92. doi: 10.1016/j.juro.2007.05.098 . Epub 2007 Aug 17. PMID: 17707022.

17. Lashley DB, McAleer IM, Kaplan GW. Ipsilateral ureteroureterostomy for the treatment of vesicoureteral reflux or obstruction associated with complete ureteral duplication. J Urol. 2001 Feb;165(2):552-4. doi: 10.1097/00005392-200102000-00067 . PMID: 11176433.

18. Bieri M, Smith CK, Smith AY, Borden TA. Ipsilateral ureteroureterostomy for single ureteral reflux or obstruction in a duplicate system. J Urol. 1998 Mar;159(3):1016-8. PMID: 9474221 .

DOI : Digital Object Identifier. **PMID** : PubMed Identifier.

Editor's Note

Actas Médicas (Ecuador) remains neutral regarding jurisdictional claims concerning published maps and institutional affiliations.