



Letter to the Editor regarding “Ileal Pouch-Anal Anastomosis for Diffuse Benign Cavernous Vascular Malformation, A Case Report”

Sergei Covantsev^{1*}, MD 

¹Department of Clinical Research and Development, Botkin Hospital, Moscow, Russia

***Corresponding authors:**

Sergei Covantsev, MD; Department of Clinical Research and Development, Botkin Hospital, Moscow, Russia, 2nd Botkin Ave, 5; 125284. Tel: +7 9636602217
Email: kovantsev.s.d@gmail.com

Received: 2024-07-05

Revised: 2024-09-10

Accept: 2024-09-10

Keywords: Ileal Pouch-Anal Anastomosis, Vascular Malformation, Anomalies

Please cite this paper as:

Covantsev S. Letter to the Editor regarding “Ileal Pouch-Anal Anastomosis for Diffuse Benign Cavernous Vascular Malformation, A Case Report”. *Iran J Colorectal Res.* 2024;12(3):100-101. doi:

Dear Editor

We read with great interest the article by Adams and others entitled “Ileal Pouch-Anal Anastomosis for Diffuse Benign Cavernous Vascular Malformation, A Case Report”, which was published in your journal (*Iran J Colorectal Res*, Volume 12, Issue 3, September 2024).¹ The article presents a compelling and innovative approach to managing a rare and complex condition. The successful application of ileal pouch-anal anastomosis (IPAA) in a patient with diffuse benign cavernous vascular malformation highlights the versatility of surgical techniques traditionally reserved for inflammatory bowel disease. This case not only expands the indications for IPAA but also underscores the importance of individualized patient care.

Cavernous vascular malformations, although benign, can lead to significant morbidity, including chronic pain and bleeding, especially when located in the rectal and anal regions. The authors effectively illustrated the challenges associated with managing such malformations through conservative methods, which often fall short in addressing the severity of symptoms. The decision to pursue IPAA, a procedure that typically involves the removal of the rectum and the creation of a pouch from the ileum, reflects

a thoughtful consideration of the patient’s quality of life and the limitations of existing conservative treatment options.

Mortality associated with massive gastrointestinal bleeding can be as high as 50%. Therefore, managing these conditions in a non-emergency setting is preferable.² Elective surgery should be performed in high-volume specialized centers that routinely handle colorectal diseases. This is also supported by data indicating that vascular variations of the gastrointestinal tract are common, and failure to recognize the variation during surgery can result in troublesome bleeding.^{3,4} Vascular anomalies of the colon are often more complex than typically described in textbooks.^{2,5,6} This is even more important in the management of patients with rare conditions, such as presented in this case report.

Recent classifications by the International Society for the Study of Vascular Anomalies categorize vascular anomalies into four main types: simple, combined, those involving major named vessels, and those associated with other anomalies. The simple type is further subclassified based on the type of blood vessels into capillary, lymphatic, venous, and arteriovenous malformations.^{7,8} Hemangiomas typically exhibit a proliferative phase lasting a few years and usually undergo spontaneous involution,

whereas venous malformations (previously classified as cavernous hemangiomas) tend to grow in proportion to body size. Interestingly, several syndromes are associated with these lesions, such as Osler-Weber-Rendu syndrome, Proteus syndrome, Kasabach-Merritt syndrome, and Klippel-Trenaunay-Weber syndrome; however, only approximately 2% of cases exhibit gastrointestinal manifestations.⁹ Vascular malformations are most commonly observed at the rectosigmoid level, while colonic localization is quite uncommon.¹⁰ The extension of the lesions and their morphology should be evaluated using various diagnostic modalities, including colonoscopy, computed tomography with contrast enhancement, and other tests such as capsule endoscopy, magnetic resonance imaging and etc.^{1, 10}

The surgical technique described in the article demonstrates meticulous planning and execution, which are crucial in minimizing complications, particularly due to the vascular nature of the condition.

Early studies reported that the incidence of major complications was as high as 54%. However, this rate has gradually decreased with increased experience and research regarding the procedure.¹¹ The complication rate of IPAA range between 6.7% and 18.2% and includes anastomotic leakage, pelvic sepsis, fistula formation, stricture, pouchitis, and Crohn's disease of the pouch.¹²

Postoperative outcomes reported in this case are

particularly noteworthy. The patient experienced a significant improvement in quality of life, with no recurrence of symptoms during several months of follow-up. This result not only highlights to the efficacy of IPAA in this context but also emphasizes the potential for surgical innovation to provide relief in challenging clinical scenarios.

Moreover, this case report raises important considerations for future research and clinical practice. Further studies may be necessary to explore the safety and efficacy of IPAA in patients with atypical indications. However, due to the rare incidence of these conditions, the current data is limited to case reports.¹⁻³ In conclusion, this case report makes a significant contribution to the literature on colorectal surgery and the management of vascular malformations. It encourages healthcare providers to remain open to innovative applications of established techniques, ultimately benefiting patients facing complex gastrointestinal challenges. The positive outcomes from this case enrich the existing body of knowledge and illustrate the successful application of IPAA in a patient with significant symptoms related to a rare vascular condition. The favorable postoperative outcomes and improved quality of life underscore the potential for innovative surgical approaches in managing complex gastrointestinal disorders.

Conflict of interest: None declared.

References

- Adams ED, Kozak M, Browning C, Hutchings DA, Fleshner PR. Ileal Pouch-Anal Anastomosis for Diffuse Benign Cavernous Vascular Malformation, A Case Report. *Iran J Colorectal Res.* doi: 10.30476/acr.2024.102952.1221
- Borum ML. Cavernous colorectal hemangioma: A rare cause of lower gastrointestinal bleeding and a review of the literature. *Dig Dis Sci.* 1997;42(12):2468-2470. doi:10.1023/A:1018896024906
- Covaņev S, Mazuruc N, Belic O. An unusual case of colon vascularization by the inferior mesenteric artery. *J Vasc Bras.* 2017 Jan-Mar;16(1):52-55. doi: 10.1590/1677-5449.009315.
- Alsabilah J, Kim WR, Kim NK. Vascular Structures of the Right Colon: Incidence and Variations with Their Clinical Implications. *Scand J Surg.* 2017 Jun;106(2):107-115. doi: 10.1177/1457496916650999.
- Kuzu MA, İsmail E, Çelik S, Şahin MF, Güner MA, Hohenberger W, Açar Hİ. Variations in the Vascular Anatomy of the Right Colon and Implications for Right-Sided Colon Surgery. *Dis Colon Rectum.* 2017 Mar;60(3):290-298. doi: 10.1097/DCR.0000000000000777.
- Mazuruc N, Covantev S, Belic O. A Case of Unusual Vascularization of Upper Abdominal Cavity' Organs. *Case Rep Vasc Med.* 2018 Oct 31;2018:5738037. doi: 10.1155/2018/5738037.
- Wassef M, Blei F, Adams D, Alomari A, Baselga E, Berenstein A, Burrows P, Frieden IJ, Garzon MC, Lopez-Gutierrez JC, Lord DJ, Mitchel S, Powell J, Prendiville J, Vikkula M; ISSVA Board and Scientific Committee. Vascular Anomalies Classification: Recommendations From the International Society for the Study of Vascular Anomalies. *Pediatrics.* 2015 Jul;136(1):e203-14. doi: 10.1542/peds.2014-3673.
- Kunimoto K, Yamamoto Y, Jinnin M. ISSVA Classification of Vascular Anomalies and Molecular Biology. *Int J Mol Sci.* 2022 Feb 21;23(4):2358. doi: 10.3390/ijms23042358.
- Ganesanathan S, Barlow J, Durai D, Hawthorne AB. Multiple venous malformations in the left colon and rectum: a long-standing case managed conservatively and an update of current literature. *BMJ Case Rep.* 2019 Mar 21;12(3):e227700. doi: 10.1136/bcr-2018-227700.
- Vilallonga R, Espin Basany E, Armengol M. Cavernous hemangioma: unusual benign tumor of the transverse colon. *Turk J Gastroenterol.* 2009 Jun;20(2):146-9.
- Ng KS, Gonsalves SJ, Sagar PM. Ileal-anal pouches: A review of its history, indications, and complications. *World J Gastroenterol* 2019; 25(31): 4320-4342 doi: 10.3748/wjg.v25.i31.4320
- Heuthorst L, Wasmann KATGM, Reijntjes MA, Hompes R, Buskens CJ, Bemelman WA. Ileal Pouch-anal Anastomosis Complications and Pouch Failure: A systematic review and meta-analysis. *Ann Surg Open.* 2021 Jun 21;2(2):e074. doi: 10.1097/AS9.0000000000000074.