# Diffuse cavernous hemangioma of rectosigmoid colon treated with *n*-butyl-2-cyanoacrylate injections



**Fig. 1** Endoscopic appearance of vascular anomalies corresponding to cavernous hemangioma. Case 1.



**Fig. 2** Endoscopic view showing reduction of cavernous hemangioma after several treatment sessions with Histoacryl. Case1.

Diffuse cavernous hemangioma is an uncommon disease defined as benign vascular malformations. About 200 cases of diffuse cavernous hemangioma of the rectum have been reported in the literature. The clinical presentation is repetitive painless rectal bleeding causing anemia [1-4].

**Case 1.** A 30-year-old man was admitted to the hospital because of recurrent gastrointestinal bleedings, treated for 9 years with blood transfusions. Nine years previously his right leg was amputated because of vascular malformations. Colonoscopy revealed vascular malformations around the whole circumference of the rectum (**© Fig. 1, 2**). Low anterior resection with mucosectomy and coloanal sleeve anastomosis did not seem feasible [5]. Thirteen procedures of endoscopic obliteration with *n*-butyl-2-cyanoacry-

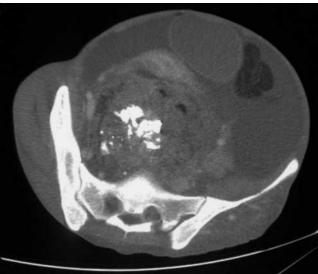
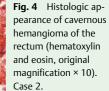
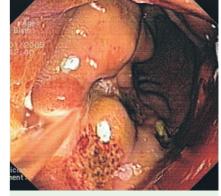


Fig. 3 Abdominal computed tomography of the patient demonstrating huge vascular malformations of cavernous hemangioma. Image after obliteration with Histoacryl. Case 2.





**Fig. 5** Endoscopic view of the cavernous hemangioma of the rectum. Case 2.



**Fig. 6** Endoscopic view showing reduction of cavernous hemangioma after several treatment sessions. Case 2.

late were undertaken. Histoacryl 0.5 ml diluted with lipiodol 0.7 ml was injected into vascular malformations at aliquots of 1.0 ml per injection, and up to12 ml at each procedure. The mass of angiomatous vessels and the frequency of bleedings decreased and the patient left the hospital.

Case 2. A 26-year-old woman was admitted to our hospital because of recurrent gastrointestinal bleedings. She had a history of numerous hospitalizations and blood transfusions during the preceding 12 years. She had extensive vascular malformations over the left buttock, knee, vulva, and toes, and could not walk. Computed tomography showed a huge mass of pelvic vascular malformation ( Fig. 3). Laparotomy and histology revealed hemangioma cavernous ( Fig. 4). Colonoscopy showed vascular malformations extending from the anal sphincter, around the whole circumference of the rectum, and, less extensive, in the sigmoid colon ( Fig. 5, 6). Fifteen procedures similar to those in case 1 were completed. The patient left the hospital; unfortunately she died 4 months later due to recurrent bleeding.

Endoscopic obliteration of cavernous hemangiomas of the rectosigmoid with *n*-butyl-2-cyanoacrylate is an effective mode of treatment for this disease and is useful in patients who are not eligible for surgery.

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- J. Żurakowski<sup>1</sup>, P. Świercz<sup>2</sup>, T. Wróblewski<sup>1</sup>, R. Paluszkiewicz<sup>1</sup>, W. Patkowski<sup>1</sup>, P. Smoter<sup>1</sup>, K. Dudek<sup>1</sup>, D. Leonowicz<sup>1</sup>, I. Nawrot<sup>2</sup>, B. Ziarkiewicz-Wróblewska<sup>3</sup>, J. Szmidt<sup>2</sup>
- Department of General, Transplant and Liver Surgery, Medical University of Warsaw, Poland
- Department of General, Vascular and Transplant Surgery, Medical University of Warsaw, Poland
- Institute of Pathological Anatomy, Medical University of Warsaw, Poland

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# **Bibliography**

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## **Corresponding author**

# J. Żurakowski, MD

Department of General, Transplant and Liver Surgery Medical University of Warsaw 1A Banacha Street 02-097 Warsaw Poland Fax: +48-022-5991545 izurakowski@gmail.com