

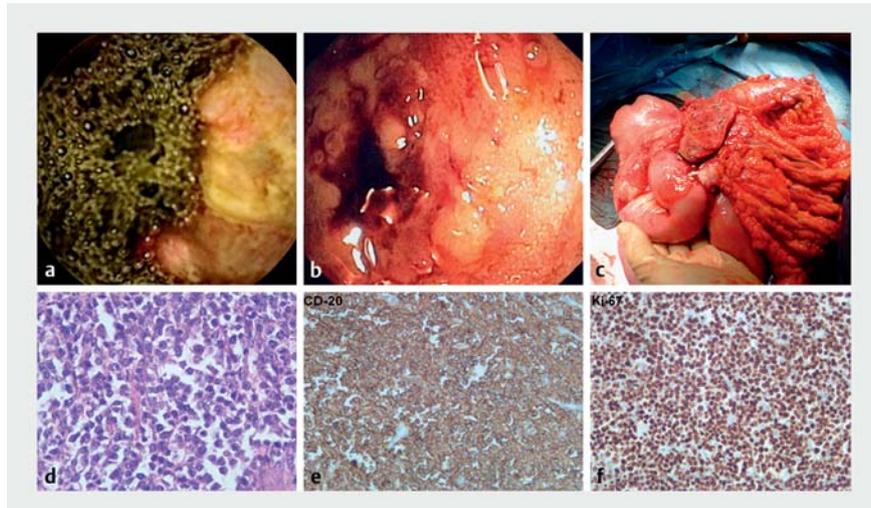
## Small-bowel B-cell lymphoma presenting as autoimmune hemolytic anemia and severe obscure gastrointestinal bleeding

OPEN  
ACCESS

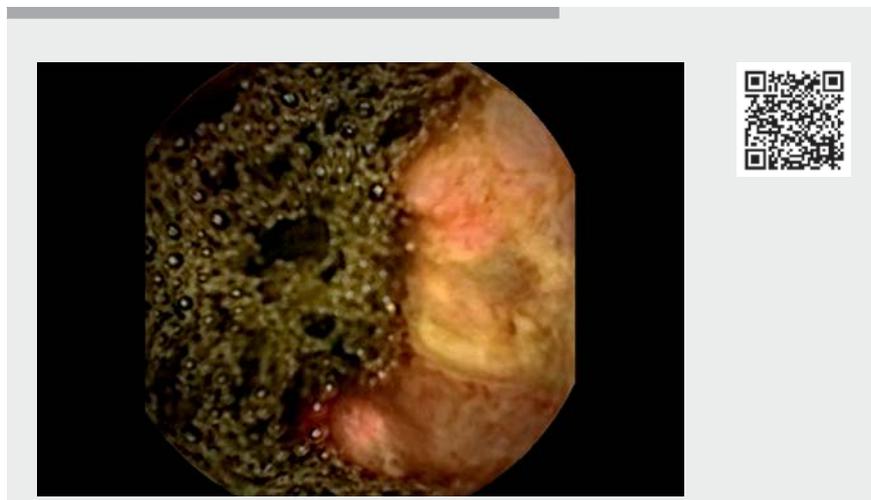
A 75-year-old man was admitted to our hospital because of worsening chronic hemolytic anemia and hematochezia. His medical history was significant for diabetes mellitus, coronary artery disease, and autoimmune hemolytic anemia (AIHA). Idiopathic AIHA was diagnosed 3 years prior to the current admission and was warm antibody-mediated, and direct antiglobulin test (Coombs test) positive. Initially he was placed on steroids, but due to recurrent hemolytic episodes, he was subsequently placed on different immunosuppressive agents, including azathioprine, cyclophosphamide, and mycophenolate mofetil.

Esophagogastroduodenoscopy and colonoscopy were unremarkable. Capsule endoscopy showed an ulcerated mass (► Fig. 1 a). On enteroscopy, a stenotic, ulcerated, and bleeding mass was evident (► Fig. 1 b). Operative photograph showing a large mass involving the terminal ileum (► Fig. 1 c). Histopathology revealed diffuse large B-cell lymphoma (DLBCL), an aggressive subtype of non-Hodgkin lymphoma (NHL) (► Fig. 1 d–f, ► Video 1).

The Coombs test was negative 2 months later, suggesting that the mass was the source of the autoantibodies. Combination R-CHOP therapy (rituximab, cyclophosphamide, doxorubicin hydrochloride, vincristine sulfate, and prednisone) resulted in remission of the lymphoma. This case highlights the occurrence of two conditions leading to severe anemia. Whenever an AIHA is present, the clinician must be aware of lymphomas. Interestingly, AIHA may occur prior to NHL (from 3 months to 13 years before lymphoma diagnosis), concurrent with (6 months before until 6 months after NHL diagnosis), at relapse of NHL, or in complete remission after successful treatment of the NHL; however, the majority of cases occur concurrently [1–3]. The most common primary small intestine



► **Fig. 1** Patient investigations. **a** Capsule endoscopy showing an ulcerated mass. **b** On enteroscopy, a stenotic, ulcerated, and bleeding mass was evident. **c** Operative photograph showing a large mass involving the terminal ileum. **d** Hematoxylin and eosin stain revealed neoplastic lymphoid cells. **e** The CD-20 marker confirmed the B-cell origin of the lymphoma. **f** Positive staining for Ki-67 in more than 90% of the cells.



► **Video 1** Small-bowel B-cell lymphoma presenting as autoimmune hemolytic anemia and severe obscure gastrointestinal bleeding.

lymphoma is DLBCL (58% of cases) and perforation is a frequent complication. Endoscopically, AIHA can be of polypoid type in 25% of cases, ulcerative type in 54%, multiple polyposis in 5%, diffuse-

infiltrating type in 6%, and mixed type in 10% of patients [2, 3].

Endoscopy\_UCTN\_Code\_CCL\_1AC\_2AC

## Competing interests

The authors declare that they have no conflict of interest.

## The authors

**Katarzyna M. Pawlak**<sup>1</sup>  **Alvaro Martínez-Alcalá**<sup>2</sup>  **Paul Thomas Kröner**<sup>3</sup>  **Lucía C. Fry**<sup>2</sup>, **Klaus Mönkemüller**<sup>2,3,4,5</sup>

- 1 Department of Gastroenterology, Hospital of the Ministry of Internal Affairs, Szczecin, Poland
- 2 Department of Gastroenterology, Helios Frankenklinik, Kronach, Germany
- 3 Department of Gastroenterology, Aneos Teaching University Hospital (Otto-von-Guericke University – Magdeburg), Halberstadt, Germany
- 4 University of Belgrade, Belgrade, Serbia
- 5 Department of Gastroenterology “Prof. Carolina Olano”, Hospital de Clínicas, Universidad de la República, Montevideo, Uruguay

## Corresponding author

**Klaus Mönkemüller, FJGES (Japan)**  
Division of Gastroenterology, University Teaching Hospital – Aneos Klinikum Halberstadt, Gleimstraße 5, 38820 Halberstadt, Germany  
moenkemueller@yahoo.com

## References

- [1] Anderson LA, Gadalla S, Morton LM et al. Population-based study of autoimmune conditions and the risk of specific lymphoid malignancies. *Int J Cancer* 2009; 125: 398–405
- [2] Hauswirth AW, Skrabs C, Schützinger C et al. Autoimmune hemolytic anemias, Evan’s syndromes, and pure red cell aplasia in non-Hodgkin lymphomas. *Leuk Lymphoma* 2007; 48: 1139–1149
- [3] Puthenparambil J, Lechner K, Kornek G. Autoimmune hemolytic anemia as a paraneoplastic phenomenon in solid tumors: a critical analysis of 52 cases reported in the literature. *Wiener Klinische Wochenschrift* 2010; 122: 229–236

## Bibliography

*Endoscopy* 2023; 55: E854–E855  
DOI 10.1055/a-2098-0883  
ISSN 0013-726X

© 2023. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited.

(<https://creativecommons.org/licenses/by/4.0/>)

Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany



## ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



*E-Videos* is an open access online section of the journal *Endoscopy*, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high-quality video and are published with a Creative Commons CC-BY license. *Endoscopy E-Videos* qualify for HINARI discounts and waivers and eligibility is automatically checked during the submission process. We grant 100% waivers to articles whose corresponding authors are based in Group A countries and 50% waivers to those who are based in Group B countries as classified by Research4Life (see: <https://www.research4life.org/access/eligibility/>).

This section has its own submission website at <https://mc.manuscriptcentral.com/e-videos>