



Intramuscular injury between muscularis propria circular and longitudinal layers: a novel subtype of Sydney III deep mural injury?

V. Zimmer^{1,2} 

Received: 16 April 2023 / Accepted: 24 April 2023 / Published online: 13 June 2023
© The Author(s) 2023

Assessment of the defect after endoscopic resection of colorectal neoplastic lesions is standard in routine endoscopy and instrumental in identifying deep muscular injury (DMI) up to frank perforation in need of immediate endoscopic closure. DMI involving the muscularis propria, classified

as a Sydney III lesion, usually implies complete muscularis propria transection. By contrast, intramuscular resection with potential implications in terms of complication risks, such as rate of post-electrocautery syndrome, has not been reported before [1] (Fig. 1).

✉ V. Zimmer
vincent.zimmer@gmx.de

¹ Department of Medicine, Marienhausklinik St. Josef
Kohlhof, Neunkirchen, Germany

² Department of Medicine II, Saarland University Medical
Center, Saarland University, Homburg, Germany

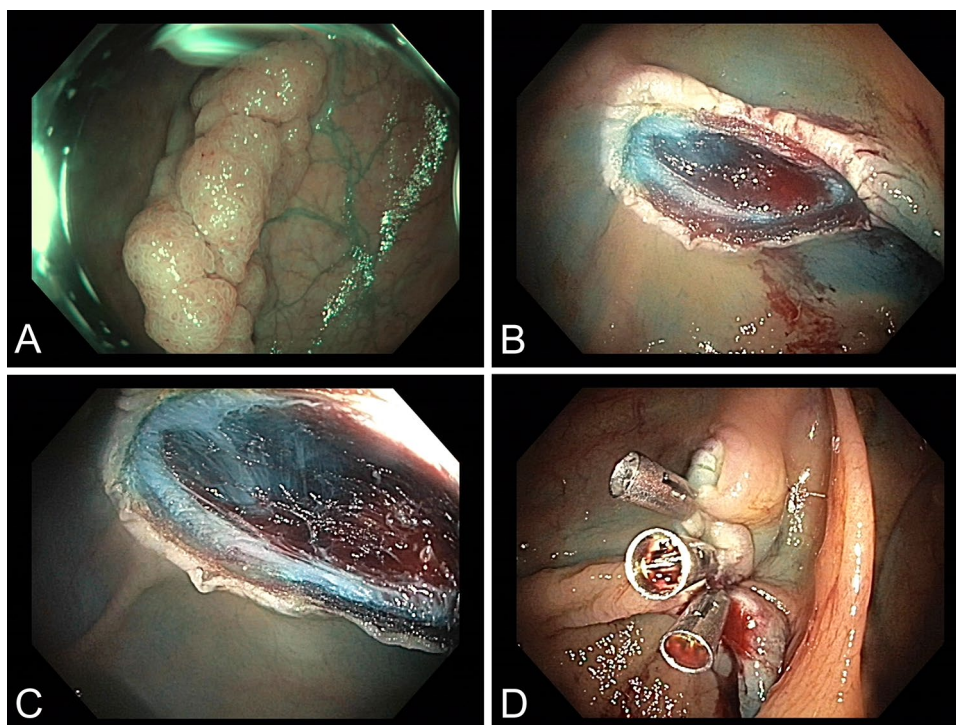


Fig. 1 **a** Outpatient ileocolonoscopy revealed an estimated 22-mm polypoid lesion (granular-type laterally spreading lesion (LSL-G), Paris IIa, NBI International Colorectal Endoscopic (NICE) classification 2). **b** Visualization of the defect after en bloc mucosectomy indicated, apart from a peripheral vessel, a target sign involving the muscularis propria, yet without clear-cut perforation, compatible with a

Sydney III deep mural injury (DMI). **c** A more detailed characterization demonstrated changes in the orientation of more superficial versus deeper muscle fibers, suggesting intra-muscularis propria resection between the (inner) circular and (outer) longitudinal layers. **d** The defect was closed immediately with three clips resulting in complete closure and an uncomplicated post-interventional clinical course

Funding Open Access funding enabled and organized by Projekt DEAL.

Declarations

Conflict of interest The author declares that they have no conflict of interest.

Patient Consent Obtained.

Ethical Approval Not warranted due to clinical case report.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated

otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

Reference

1. Burgess NG, Bassan MS, McLeod D, Williams SJ, Byth K, Bourke MJ (2017) Deep mural injury and perforation after colonic endoscopic mucosal resection: a new classification and analysis of risk factors. *Gut* 66(10):1779–1789

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.