Successful endoscopic full-thickness resection of intramucosal cancer with Aurora rings arising in a diverticulum

The diagnosis and treatment of polypoid lesions located in diverticula is challenging. Aurora rings – concentric rings around a polypoid lesion [1] – may indicate an origin in a diverticulum, and accordingly dedicated endoscopic treatment should be planned. Intradiverticular lesions can be treated by several endoscopic approaches [2–5]. We report the case of a polypoid lesion originating in a diverticulum with the Aurora rings sign and intramucosal cancer which was successfully resected using an endoscopic full-thickness resection device (FTRD, Ovesco, Tübingen, Germany).

A 55-year-old woman underwent colonoscopy after a positive fecal occult blood test. A 10-mm sessile polyp (Paris 0-Is) with Aurora rings was observed in the sigmoid colon (▶ Fig. 1, ▶ Fig. 2). Because the lesion originated in a diverticulum and showed a tortuous surface pattern morphology, a single biopsy at the edge of the lesion was performed first. The biopsy revealed advanced adenoma with intramucosal cancer. Full-thickness resection using the FTRD was planned. The lesion was first marked, then it was carefully pulled into the FTRD cap using the grasping forceps. Only careful suction was performed. After ensuring that the tumor was completely inside the cap, the FTRD clip was released and the lesion was snared and resected en bloc (▶ Fig. 3). No adverse events, early or delayed, were observed.

Histology revealed the absence of a muscular layer, confirming that the lesion was located on a false diverticulum (▶ Fig. 4). Complete resection of a tubular adenoma with intramucosal cancer was achieved with free lateral and vertical margins (R0) (▶ Fig. 5). Surveillance colonoscopy performed 6 months later displayed the resected area with the over-the-scope clip (OTSC) on site. Biopsies showed granulation tissue without dysplasia.

This case shows the importance of careful endoscopic observation before standard polypectomy. The identification of the subtle endoscopic sign of the Aurora rings determined the performance of safe and accurate endoscopic curative treatment using the FTRD in this patient.

Acknowledgments

We wish to thank Dr. Manuel Rodriguez-Navarro for his support in encouraging us to perform the procedure and Juan M. Herrerias-Esteban for his help in preparing the images.

Endoscopy_UCTN_Code_TTT_1AQ_2AD

Fig. 1 Endoscopic view showing concentric rings – Aurora rings (arrows) – around the polypoid lesion of the sigmoid colon, suggesting that the lesion originated in a diverticulum.

Fig. 2 Endoscopic view showing the Aurora rings (arrows) around the polypoid lesion (i-scan image).

Fig. 3 Endoscopic appearance of the resection site showing the deployed OTSC still in place.

Fig. 4 Tubular adenoma with intramucosal cancer originating in a colonic diverticulum. The lack of a muscular layer confirmed that the lesion was located in a false diverticulum. H&E, ×5.

Fig. 5 Tubular adenoma showing intramucosal cancer: nuclei are enlarged, depolarized, hyperchromatic, and pseudodstratified. H&E, ×40.
Competing interests
None

The authors
Victoria A. Jimenez-Garcia, Rafael Romero-Castro, Masayoshi Yamada, Juan Segura-Sanchez, Javier Alcazar-Guijo, Helmut Neumann
1 Endoscopy Division, Hospital Vithas Nisa Sevilla, Seville, Spain
2 Endoscopy Division, National Cancer Center Hospital, Tokyo, Japan
3 Pathology Division, Hospital Vithas Nisa Sevilla, Seville, Spain
4 Department of Medicine I, University Hospital Mainz, Mainz, Germany

Corresponding author
Victoria Alejandra Jimenez-Garcia, MD PhD
Endoscopy Division, Hospital Vithas Nisa Sevilla, Av. Placido Fernandez Viagas s/n. 41950, Castilleja de la Cuesta, Seville, Spain
drajimenezg@hotmail.com

References

Bibliography
DOI https://doi.org/10.1055/a-1065-1517
Published online: 2019
Endoscopy
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Endoscopy E-Videos
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

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

Jimenez-Garcia Victoria A et al. Endoscopic full-thickness resection of intramucosal cancer in a diverticulum ... Endoscopy