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Endoscopic Snapshot

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Under the Hood: An Easy Method for Lesions Retrieval

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Debaixo do capuz: um método fácil de extração de lesões

Palavras Chave
Disseção endoscópica da submucosa · Extração · Capuz · Gastrointestinal · Espécime

Endoscopic submucosal dissection (ESD) allows for effective resection of large gastrointestinal lesions with minimal risk of recurrence. The goal of ESD is to provide *en bloc* removal of lesions with free margins. Accurate pathological evaluation of the resected specimen is crucial for guiding patient management. In some cases, the dissected specimen is too large, hampering its retrieval through the cardia, upper esophageal sphincter or the anal canal [1]. In other cases, mostly in the colon and duodenum [2], the tissue is soft, and its retrieval can cause specimen fragmentation. Conventional endoscopic nets are useful for small or middle-size specimens but can fragment large specimens. Some other techniques were described. However, most use non-conventional devices not easily available [3, 4].

Tumor extraction through defecation is a simple technique [5] but has limitations, particularly for large lesions requiring deep sedation over several hours. In these cases, immediate retrieval of the specimen is not possible, affecting pathological assessment.

Herein, we describe the "under the hood" technique, using a standard endoscope to overcome this issue. This technique is easy to use and enables the retrieval of large gastrointestinal specimens intact, avoiding fragmentation. The device used is a standard bell-shaped latex tool for foreign body removal (ENDOLINE®HOOD, Prince Medical, Ercuis-France). It has a tip diameter of 8 mm and a distal diameter of 40 mm, is 75 mm long, and is easily attachable to a conventional gastroscope's tip (shown in Fig. 1).

Case Reports

A 60-year-old woman was referred for ESD resection of a large sigmoid colon polyp. Large size and complex morphology made margin delineation and size estimation difficult. After *en bloc* ESD, the specimen could not be passed

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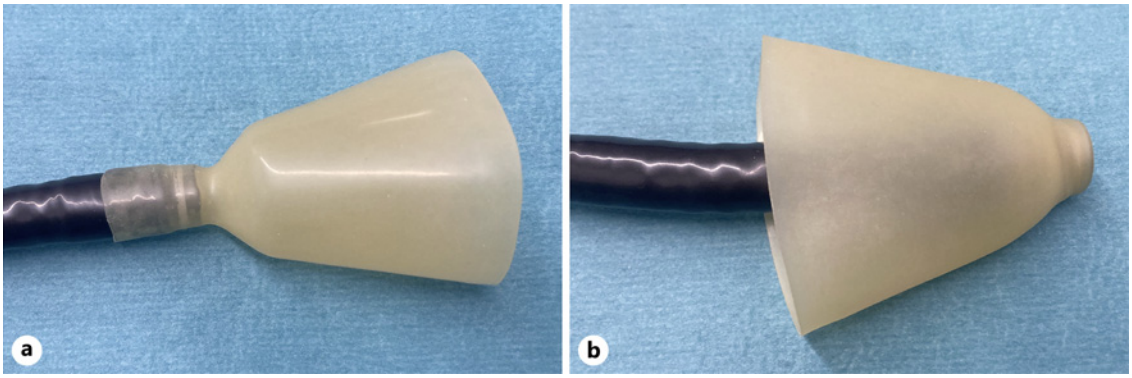

Fig. 1. a ENDOLINE®HOOD: it has a tip diameter of 8 mm, distal diameter of 40 mm, a length of 75 mm and can be easily attached to the tip of a conventional gastroscope. **b** Inverted ENDOLINE®HOOD, the way of intraluminal insertion.

Fig. 2. a Resected specimen being captured into the hood. **b** Specimen retrieved *en bloc*. **c** Colonic specimen was intact and 80 × 35 mm in size.

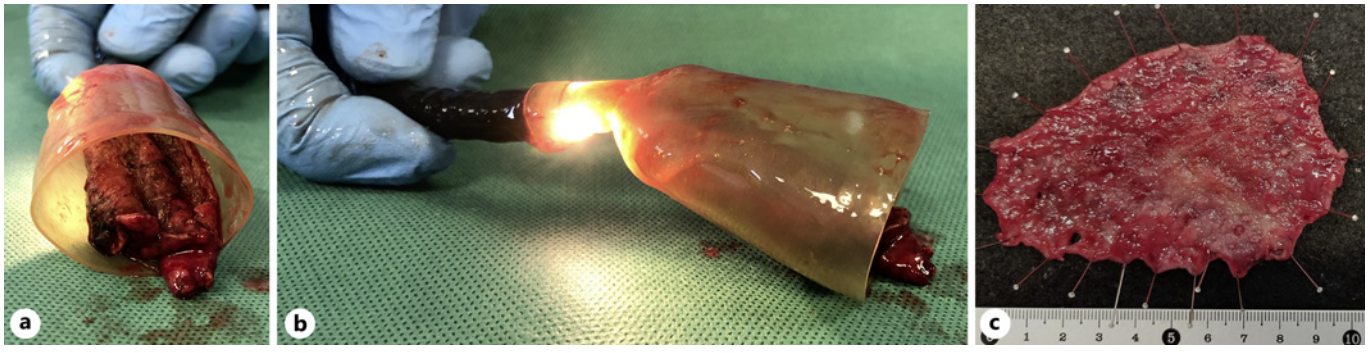

Fig. 3. a Gastric specimen inside the hood. **b** Lateral view of the ENDOLINE®HOOD, demonstrating the good adaptation of the device to the endoscope even with specimen weight. **c** Undamaged gastric specimen 100 × 68 mm in size.

through the anal canal despite several attempts with different conventional nets.

We decided to use the "under the hood" technique. The hood was assembled on the tip of the 9.9 mm endoscope and inserted using lubrification. After pushing the instrument gently into the proximal rectum, the scope was slowly withdrawn to deploy the hood. Then, the specimen was gently suctioned into the hood and withdrawn. The specimen was intact, measuring 80 × 35 mm (shown in Fig. 2). Histopathologic analysis revealed an adenoma with high-grade dysplasia and free margins.

The second case refers to a 68-year-old male patient who was planned for ESD resection of an 8 cm dysplastic flat lesion (Paris 0-IIb) in the proximal gastric body. It was not possible to pass the specimen through the cardia following *en bloc* ESD. After assembling the hood, the scope was inserted into the stomach. Afterward, the scope was withdrawn to deploy the hood, and the specimen was gently captured by suction.

The scope was withdrawn with suction, retrieving a 10 cm specimen (shown in Fig. 3). Histopathologic analysis revealed an adenocarcinoma with free margins.

This technique is effective regardless of specimen size and the diameter of the endoscope's working channel. It utilizes a widely available device in most endoscopy units. However, it is contraindicated for patients with latex allergy. In conclusion, this simple, easy, cheap, and effective approach should be considered for retrieving large upper and lower gastrointestinal specimens.

Statement of Ethics

An informed consent was obtained from patients for publication of the details of their medical case and accompanying images. Ethical approval was not required according to local norms.

Conflict of Interest Statement

No authors report potential conflicts of interest relevant to this manuscript.

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Author Contributions

Execution: Francisco Baldaque-Silva, João Pereira, Leonor Guedes-Novais, and Pedro Antunes. Critically review of manuscript for intellectual content and approval of final submitted draft: Francisco Baldaque-Silva, João Pereira, Leonor Guedes-Novais, Pedro Antunes, Masami Omae, and Henrik Maltzman.

Data Availability Statement

All relevant clinical data of this case report study are included in this article. Further inquiries can be directed to the corresponding author.

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