

Simple water infusion via a non-traumatic tube facilitates endoscopic resection of an appendiceal-orifice polyp

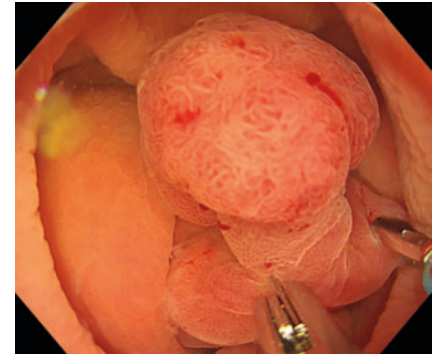
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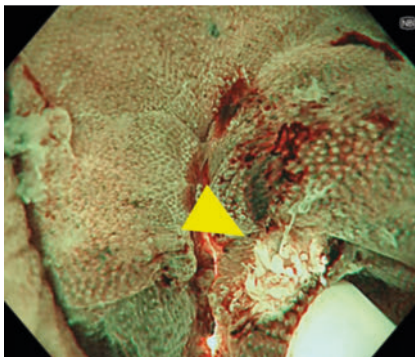
► **Fig. 1** The lesion could not be visualized with water immersion.



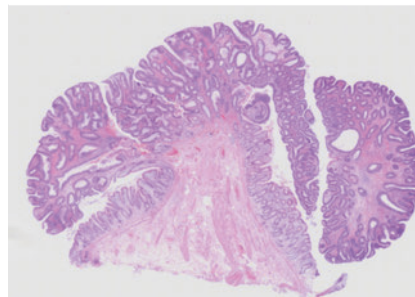
► **Fig. 2** A non-traumatic tube was inserted into the appendiceal lumen.



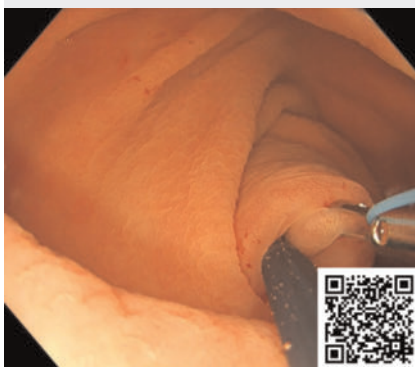
► **Fig. 3** Continuous water infusion through the tube generated hydraulic pressure that extruded the polyp into the cecal lumen.



► **Fig. 4** Complete resection was confirmed endoscopically. The arrowhead indicates the edge of the resection base.



► **Fig. 5** Histopathology revealed tubular adenoma.



► **Video 1** Simple water infusion via a non-traumatic tube facilitates endoscopic resection of an appendiceal-orifice polyp.

We present the case of a 53-year-old man who was referred after fecal immunochemical test-positive colonoscopy revealing a polyp in the appendiceal orifice (AO). In our initial examination, the polyp could not be visualized with air insufflation or water immersion (► **Fig. 1**), even with traction using biopsy forceps. A repeat colonoscopy 3 months later failed to expose the lesion, even with traction using a multi-loop traction device (Boston Scientific Co. Ltd, Tokyo, Japan). Subsequently, a non-traumatic tube was carefully inserted into the appendiceal lumen (► **Fig. 2**). Continuous water infusion through the tube generated hydraulic pressure that extruded the polyp into the cecal lumen, thus permitting stable visualization (► **Fig. 3**). The lesion appeared pedunculated with a

10-mm head. Magnifying narrow band imaging revealed Japan NBI Expert Team classification Type 2A, consistent with adenoma. After placement of a hemostatic clip at the stalk base, en bloc resection was performed using underwater endoscopic mucosal resection. Complete resection was confirmed endoscopically and additional prophylactic clips were applied (► **Fig. 4**). The procedure was completed without any adverse events. Histopathological examination revealed a tubular adenoma with negative margins (► **Fig. 5**). Polyps at the AO often require surgery because of difficulties in visualization and access [1]. To the best of our knowledge, this is the first report of targeted water infusion into the appendix via a non-traumatic tube to expose an AO polyp and enable safe resection using standard tools (► **Video 1**). The safety of appendiceal intubation and irrigation is supported by reports of endoscopic retrograde appendicitis therapy [2,3]. This simple and reproducible maneuver may expand endoscopic options and help avoid surgery for AO polyps.

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Contributors' Statement

Hajime Yoshii: Writing – original draft. Kazunori Takada: Supervision, Writing – review & editing. Kenichiro Imai: Supervision. Sayo Ito: Supervision. Kinichi Hotta: Supervision. Hiroyuki Ono: Supervision.




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Conflict of Interest

The authors declare that they have no conflict of interest.

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