First experience with ESD+ on a 3 cm rectal polyp

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PROBLEM
A 48-year-old female patient was introduced with an approx. 3 cm large rectal polyp for resection under clinical conditions. A broad based, raised, villous polyp of approx. 3 cm in size (pit pattern III-L) was found at 8 cm from ano.

METHOD
Due to the localization and the pit pattern structure, we chose a resection procedure using ESD+ (grasper via double channel provided by AWC®). The AWC® (Additional Working Channel, Ovesco) is an endoscopic system that provides an additional working channel for flexible endoscopes. The lesion was injected with HAES/toluidine blue (20 ml), followed by circumcision and resection with the Aqanife, 2 mm (Ovesco) in double channel technique (grasping forceps, Olympus). An ooze bleed was stopped with adrenaline (1:20000), several small bleedings with Coagrasper™ (Olympus). In total, the specimen was removed in toto and stretched on cork (size 35 mm after Buscopan administration). The inspection of the resection site immediately after the procedure (70 min, 1000 mg propofol intravenously) showed a complete resection. The safety margins were macroscopically tight, but the overall result was excellent. There were clean local conditions at the end of the examination.

RESULTS
Histological diagnosis: A mucosectomy specimen of 2.5 x 2.2 x 0.4 cm, not thread-marked, stretched on cork. Tubulo-villous adenoma of the large intestine mucosa with predominantly low-grade and focal high-grade dysplasia. Focal low-grade dysplasia reaching into the lateral artificially altered specimen edges. No invasive growth. Complete removal.

The procedure was carried out on an outpatient basis, the patient was discharged 3 hours after the end of the procedure without any post-procedural pain or discomfort. An inspection of the resection site is planned again in 6 months.
CONCLUSION FOR PRACTICAL APPLICATION

The dissection of polypoid lesions using ESD+ with the help of a grasper and the AqaNife, as well as Coagrasper is safely feasible. The implementation of the ESD+ technique can, according to initial assessment, be significantly accelerated by more practice. The additional working channel facilitates hemostasis (additional lumen for suction and flushing). The AqaNife is a monopolar electrosurgical instrument for endoscopic submucosal dissection using a flexible endoscope with a working channel with a minimum diameter of 2.8 mm. It is a fixed (short) dissection knife, which offers advantages such as precise marking of the tissue, defined, fixed position of the needle, no pushing back in case of tissue contact, straight needle for variable dissection angles, ceramic cap as stopper and protector, re-injection without instrument change as well as flushing possibility.

Fig. 3: ESD+
  a) Circumcision with AqaNife
  b-e) Bimanual working with grasper and AqaNife
  f) Complete resection