ESD with HybridKnife

ESDH – an application with a future

Ever since the ERBE HybridKnife was launched on the market, the instrument has been continually optimized thanks to feedback from our customers. During this time, the HybridKnife has become established in the market as a versatile instrument for endoscopic submucosal dissection (ESD). The medical world has been examining applications for tumor removal more intensely in the past few years and has tested the HybridKnife in diverse fields of application to this end.

The ESD with HybridKnife (ESDH) method has been received very positively during numerous trials by experts from surgery and medical technology throughout the world. That makes the HybridKnife the ideal instrument for endoscopy of the future, as it combines excellent application options with simple handling for surgeons.

1. Safety

The safety of the application has been proven by several independent studies in the past few months. An en-bloc resection proved successful in 90% of cases, and an R0 resection in over 80%. ESDH causes significantly fewer perforations than the previous standard method and is regarded by experts as the gold standard.

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3 Schumacher B et al. Water-jet assisted endoscopic submucosal dissection (ESDH) in comparison to conventional ESD technique for treatment of early gastric cancer, Gastroint Endosc 2012, DDW abstract accepted.


standard among procedures.\textsuperscript{7} \textsuperscript{8} \textsuperscript{9} \textsuperscript{10} It is the high guarantee of success that makes the method so well esteemed, because the high probability that a lesion has been removed completely helps the medical team when it comes to the patient’s aftercare and increases the certainty of further recovery.

2. International recognition

The studies by European and Asian doctors have come to the conclusion that the ESDH application has huge development potential for future clinical use. This is made possible by the versatility of the HybridKnife and its high success rate for en-bloc resections, which is necessary for reliable examination of an excision and the further treatment of the patient\textsuperscript{11}.

3. Extending the application options of ESDH to new areas of endoscopy

In recent months, ESD has been presented by experts as an attractive treatment option for early carcinomas in the colon, esophagus, stomach and bladder. As a high incidence of intestinal cancer is apparent in Europe and North America, the HybridKnife is available as an ideal instrument for ESD thanks to its versatility and easy handling.


HybridKnife for peroral endoscopic myotomy (POEM)

The new HybridKnife will enable us to develop a new area of application, peroral endoscopic myotomy (POEM). POEM is used in the case of achalasia (esophageal motility disorder) in order to dissect the lower part of the sphincter. This method was developed by Prof. Inoue, but it has so far only been possible to perform it with the Triangle Knife from Olympus. In China, preparations are underway for a POEM study. The first results are already available.

HybridKnife for the treatment of bladder carcinomas

Every year, more than 75,000 people in Europe fall victim to bladder cancer. The relevant therapy involves as complete a removal of the lesion as is possible. Generally, the procedure for this is performed endoscopically via the urethra as a transurethral resection of the bladder tumor (TURB): The tumor is resected using an electric snare. A follow-up resection is necessary in 25 – 75 % of cases.

As an endoscopic access route via the urethra is possible, HybridKnife can be used for an R0 resection of bladder tumors. The successful en-bloc resection of larger bladder carcinomas as well has been demonstrated.

References:
13 Zhou PH et al. Water-jet assisted peroral endoscopic myotomy (POEM) in comparison to conventional endoscopic myotomy technique for treatment of esophageal achalasia, Gastrointest Endosc 2012, DDW abstract accepted.
The advantages of ESD with HybridKnife

- Versatile use to treat gastric, urothelial and rectal carcinomas
- No time-consuming change between the injection needle and the electrosurgical cutting electrode
- En-bloc resection possible in 90 % of cases
- R0 resection possible in over 80 % of cases\textsuperscript{17}
- A greater probability of a complete removal enables better identification of a carcinoma
- Simple handling