New Technique For Improved Fistula Closure With The OTSC Clip

Meining, A., Bajbouj, M., Feussner, H., Wilhelm, D.

PROBLEM
A 41-year-old female patient developed a large fistula from an esophageal-gastric anastomosis into the bronchial system after gastric pull-up due to esophagus resection after lye ingestion. Reliable clip placement of conventional hemo clips or OTSC clips, as well as stent placement, was impossible due to the coarse, scarred tissue around the fistula opening. The patient had to be fed via gastric tube for several weeks.

METHOD
To achieve better anchoring of the OTSC clip, an incision into the tissue around the fistula opening was made with a conventional needle knife (incision diameter: approx. 15 mm, corresponding to cap size of the OTSC clip applicator). Tissue incision reduces tissue tension and enables more effective compression of the fistula tract since it allows the clip to grasp beneath the tissue surface. Reliable anchoring of the clip around the fistula was now possible. Incision into the tissue also creates a fresh lesion, which increases the chances of fistula healing. Subsequently, the patient was able to drink without aspirating, and the contrast medium showed successful closure of the fistula.

RESULTS
Following the procedure, the patient was able to eat normally and suffered no more aspirations. A second-look endoscopy 3 months after the procedure proved continued successful closure of the fistula.

CONCLUSION FOR PRACTICAL APPLICATION
For closure of fistulae with coarse, chronically hardened tissue, an incision into the tissue is an alternative before application of the OTSC clip in order to increase efficacy of the clip. Benefits of an incision are:

- A superficial incision into the wall at the mucosal level around the fistula opening reduces tissue tension in the area where the clip is applied. This enables the clip to stay more securely in place, even in fibrotic tissue.
- Tissue incision before clip application improves compression of the fistula opening as well as the fistula tract beneath since it allows the clip to access lower layers of tissue.
- Incision into the tissue creates a fresh lesion, which may increase chances of fistula healing.

Sources: Endo heute 2015; 28-V; doi: 10.1055/s-0035-1545049 (German) | ASGE Video Case, DDW 2015

otsc_university_hospital_ulm_case_study_rod_english_v1/rev1_2015-10-10