The Luebeck EUS Trainer – LET

The Luebeck EUS Trainer **LET** is a closed ex vivo bio-model for realistic training in invasive and interventional endoscopic ultrasound procedures (EUS) in the upper (oesophagus and stomach) and lower (rectum) gastrointestinal tract. The **LET** can be used in gastroenterological, surgical and urological training with longitudinal EUS probes, or rigid, rectal ultrasound probes.

- EUS-FNA of artificial objects
- EUS-guided cyst drainage
- Urological interventions

The **LET** is approved for veterinary EUS equipment only.

Dimensions (width x depth x height): 56 cm x 45 cm x 24 cm
Weight: 25 kg

Concept and design
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Features at a glance

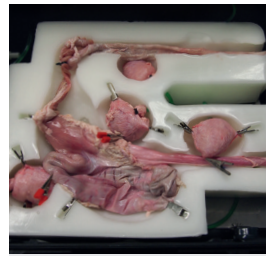
LET LUEBECK EUS TRAINER

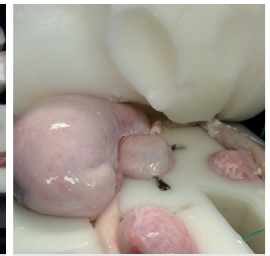
- Realistic endosonographic interventions on porcine organs
- Good sonographic visibility of the artificial biopsy objects
- Stable positioning of organs and biopsy objects by integration in a matrix
- Reduction of air artefacts by embedding the organs and biopsy objects in water and an optimised matrix
- Externally refillable cysts
- Integrated neutral electrode for use in electrosurgery
- Suitable for radioscopy (X-ray and CT)
- Can also be used with CT image fusion systems (prostate/rectum) as required
- Odourless integration of organs into a closed system
- Easily fillable case with separately delivered organs and consumables
- Assembly time of approximately 30 minutes
- Suitable for training at various levels of difficulty
- Ideal for team training

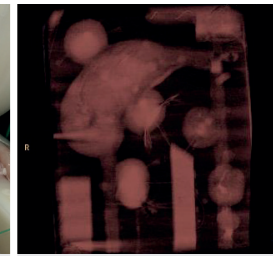
LET case and connections

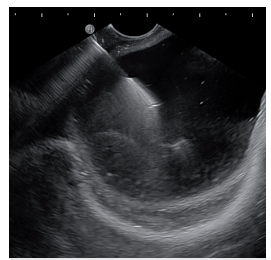
1 Case lid
2 Case base
3 Carrying handle
4 Snap-close locks
5 Rotary valve (without function)
6 Connection jack for HF surgical equipment
7 Pressure equalisation valve
8 Fill level indicator
9 Connection valves for filling the urinary bladder and “pseudocysts”
10 Connection valve for water inlet/outlet
11 Inlet tube for the rectal-sided endoscope
12 Inlet tube for the stomach-sided endoscope

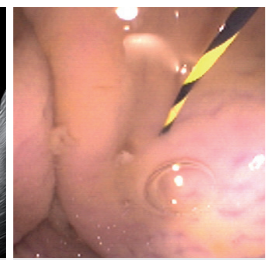
The LET in practice

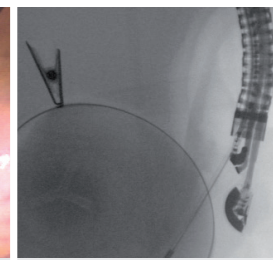

Base matrix with organs


Organs integrated into the matrix


CT topogram of organs and biopsy objects


19 G EUS-FNA needle in “pseudocyst”


Stomach cavity with wire inserted


Contrast radiography of “pseudocyst” with wire