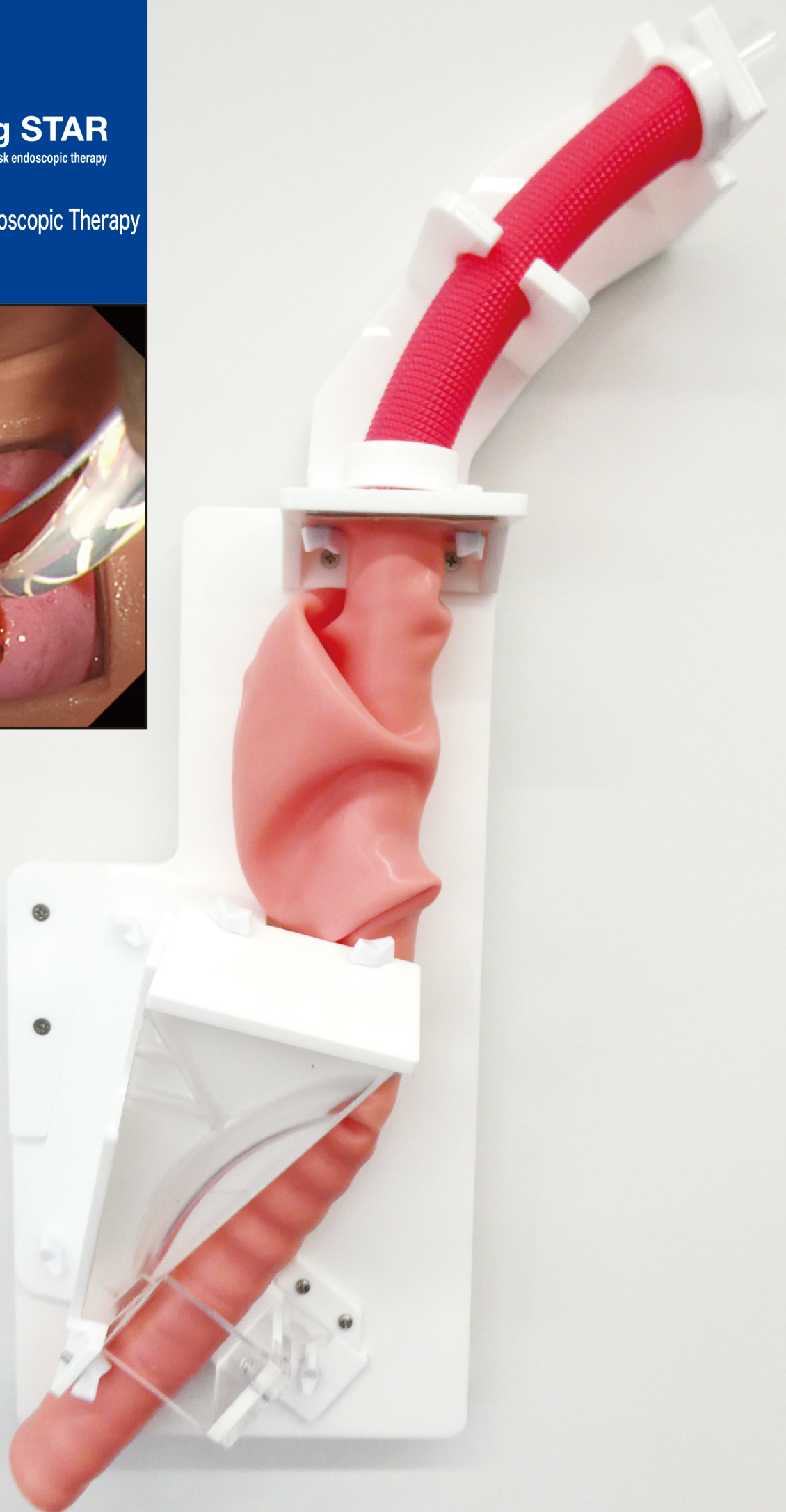
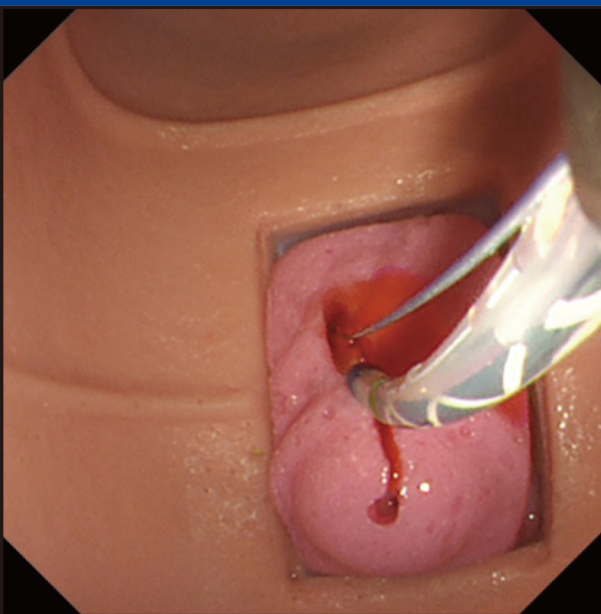


Denka

Medical Rising STAR

Simulator Training model for Advanced high Risk endoscopic therapy

Medical Simulator for Endoscopic Therapy
ERCP/EST Model



A simulator designed to improve ERCP-related procedural skills by replicating realistic manipulation and post-EST bleeding.

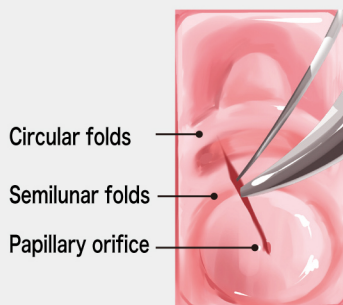
Background of Development

ERCP/EST procedures pose a risk of bleeding complications due to inappropriate incision, but no dry simulator capable of reproducing bleeding existed.

Development Concept

- Enables the learning of endoscopic procedures using actual endoscopes and devices.
- Simulates the duodenal papilla with elasticity like human tissue.
- Enables the learning of the correct incision direction for EST.
- Arterial bleeding can be reproduced through syringe manipulation.

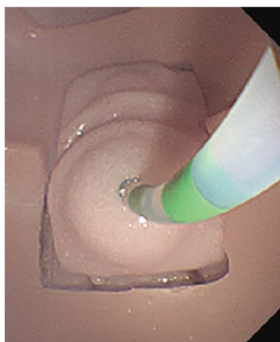
Features



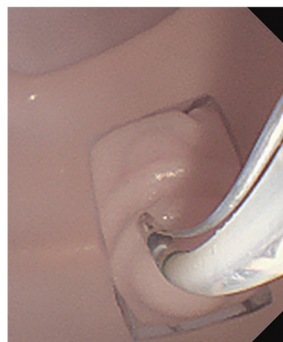
Anatomically reproduces the blood vessel placement and bile duct trajectory.

Bleeding complications occur due to incisions outside the 11-12 o'clock direction or excessive incisions.

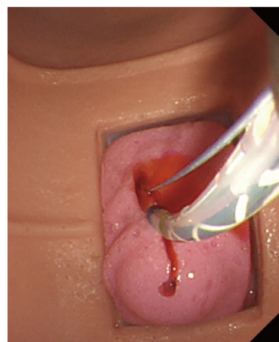
Enables comprehensive learning of bile duct cannulation, EST, and bile duct stone removal.



Bile duct cannulation



EST



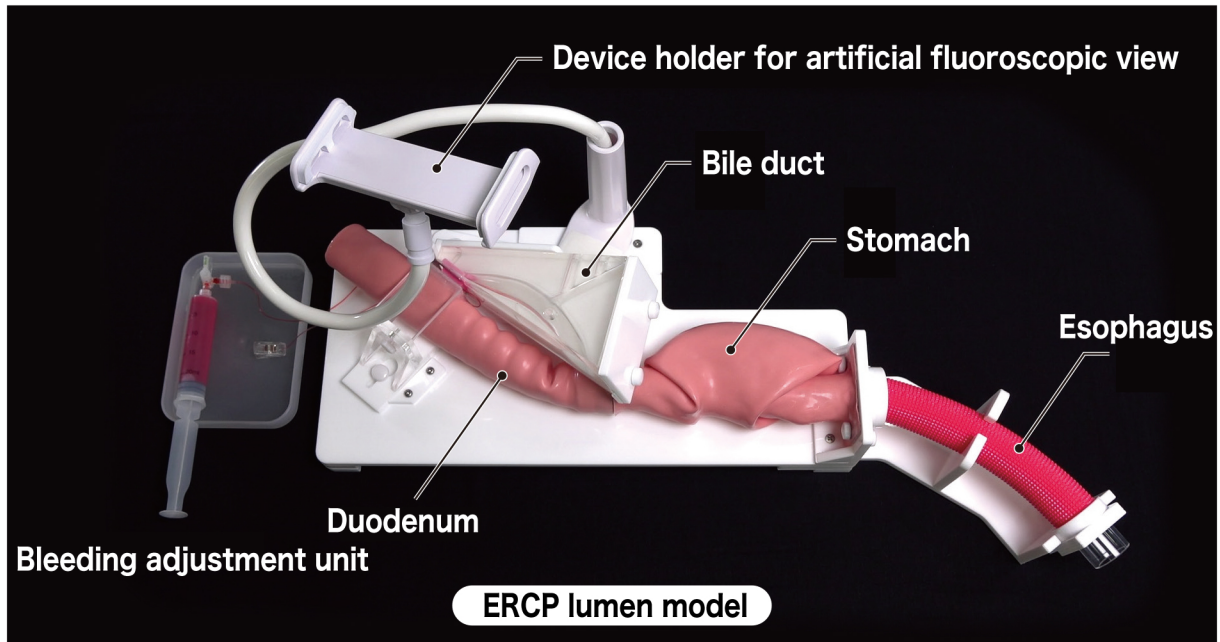
Reproduction of
bleeding complications



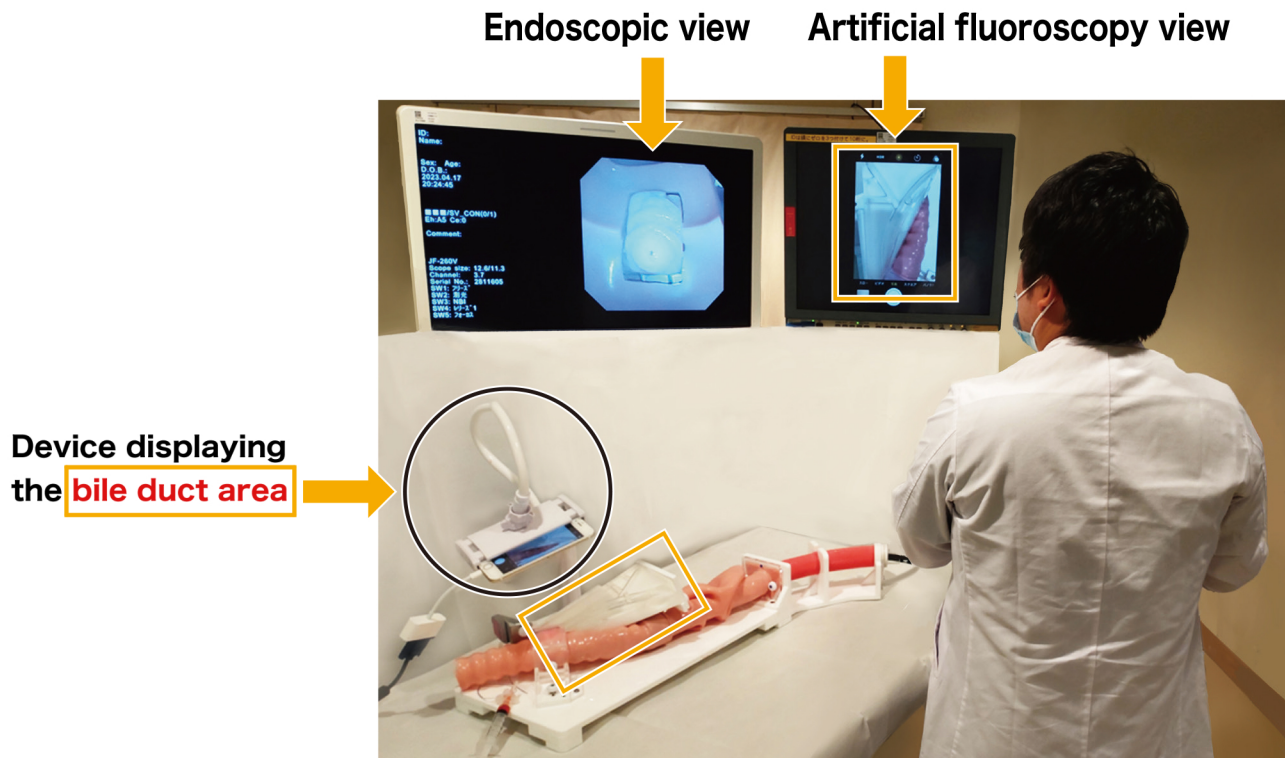
Bile duct stone removal

High Reproducibility and Simple Setup

- Attaching the artificial papilla to the ERCP lumen model for a complete setup.
- The ERCP lumen model can be easily disassembled for washing and reused repeatedly.
- The setup can be easily reproduced, making it ideal for remote guidance.



Simultaneous display of endoscopic and artificial fluoroscopic views provides a clinical-like training environment



Specifications

| Model | Artificial Papilla with Blood Vessels | ERCP Lumen Model |
|------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size | W2.7 × H2.9cm | W61.5 × D29 × H14cm |
| Weight | 10 g | 2.1 kg |
| Material | Hydrogel | Acrylic, silicone |
| Components | Model body 5 pieces per set | <ul style="list-style-type: none"> • Model (1 of each) Esophagus Stomach Duodenum Bile duct Base • Bleeding adjustment units 3-way stopcock Syringe Clips Red food coloring • Electrosurgical unit accessories Return electrode × 1 • Other accessories |

Assembly Video



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