Endoscopic hand-suturing (EHS) is a novel suturing method that allows optimal and secure intraluminal suturing [1, 2]. On the other hand, the procedure is reported to be complicated, difficult, and time-consuming [3, 4]. At present, there is no appropriate training model for it and no established method for learning it. We have developed a training sheet we called SuTURE (Suture Trainer Using Re-usable Elastomer; Kotobuki Medical Inc., Saitama, Japan) for EHS by applying the G-Master, which was initially developed as a training model for gastric endoscopic submucosal dissection (ESD) (▶ Fig. 1). SuTURE has a two-layer structure of elastomer, a polymer material that exhibits rubber-like elasticity, and has a virtual mucosal defect with a major diameter of 40 mm on the upper sheet and a gusset at the edge to reproduce the sensation of applying a needle similar to that of a real case (▶ Fig. 2). It is also strong enough to practice suture closure without tearing when pulled with a thread. The difficulty of the EHS operation depends on the angle at which the lesion is confronted. The G-Master is an ESD training model characterized by the ability to freely set the angle at which the scope faces the lesion. EHS training was performed by fixing the scope and SuTURE in various positions, such as perpendicular, anterior wall side, and superior wall side (▶ Fig. 3, Video 1).

This virtual lesion does not use biological material and does not require a dedicated room or endoscope. It is easy to prepare and can be disposed of as regular trash after training.

At present, there is no EHS specialized training model, but EHS requires technical mastery. This training model could contribute to EHS proficiency.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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References


Fig. 3 You can train with various body parts that can be set with G-Master.