

Title:

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Authors:

Miguel Fraile López, Álvaro Terán , Pedro Luis Fernández Gil, María Morís, Juan Carlos Rodríguez Duque, Maria Jesús López Arias, Javier Crespo

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Triangle Tip-Jet Knife used as “probe mode” can reduce the risk of mucosal damage during incision and tunneling phase of peroral endoscopic myotomy (POEM) procedures

Miguel Fraile-López, Álvaro Terán, Pedro Fernández Gil, María Morís, Juan Carlos Rodríguez Duque, María Jesús López Arias, Javier Crespo

Gastroenterology and Hepatology Department. Clinical and Translational Research in Digestive Diseases. Valdecilla Research Institute (IDIVAL). Hospital Universitario Marqués de Valdecilla. Santander, Spain

Correspondence: Miguel Fraile-López

e-mail: miguelfrailelopez@gmail.com

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Dear Editor,

Peroral endoscopic myotomy (POEM) is a minimally invasive endoscopic technique for the treatment of achalasia and its use has been wide spread in recent years (1,2). The Triangle Tip-Jet (TTJ) (Olympus Triangle TipKnife-J, KD645L) has become very popular in this field and it is currently one of the most used knives for POEM procedures. It has the capability of knife dissection along with submucosal injection and its triangle tip shape is especially useful for pulling tissue during the myotomy phase. However, its length may be too long in situations such as tight esophagogastric junction (EGJ), narrow submucosa due to fibrosis, trimming after mucosal incision and/or less experienced endoscopists (3), in which preserving the integrity of the mucosa is vitally important.

Distal attachment conical caps like ST Hood (DH28GR, 29CR; Fujifilm, Tokyo, Japan) are commonly used for POEM, resting the distal end of the TTJ on the cap, with only the triangular tip protruding (Fig. 1). By using straight caps, a wider view and greater maneuverability are obtained, however, it is more difficult to calculate the distance between the triangle tip and the distal attachment end due to its straight shape.

The T-shape of the distal TTJ tip was designed for use in an open position. In this way, when using straight caps and/or in case of less experienced endoscopists, they can feel unsafe during challenging procedures (tight EGJ, submucosal fibrosis), either during the incision and/or tunneling phase. Herein, we suggest the use of the TTJ knife in “probe mode” (4) to reduce the distal knife length from 4.5 mm to 0.3 mm, thus allowing a greater control of the knife tip (Fig. 2). In addition, the TTJ probe mode can be safely used with both contact and non-contact currents, which are becoming increasingly popular in recent years.

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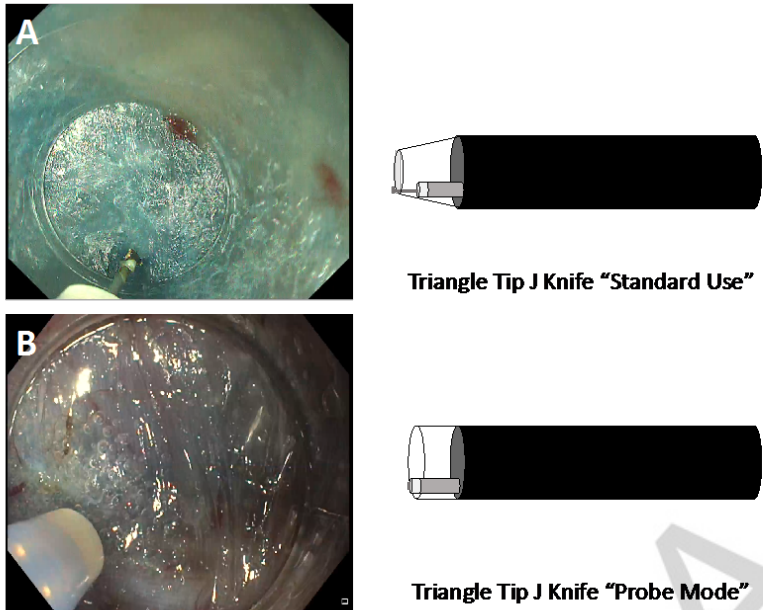


Fig. 1. A. Triangle Tip-Jet Knife with conical distal attachment with "Standard use" (open position). B. Triangle Tip-Jet Knife with straight distal attachment used as "Probe mode" (close position).

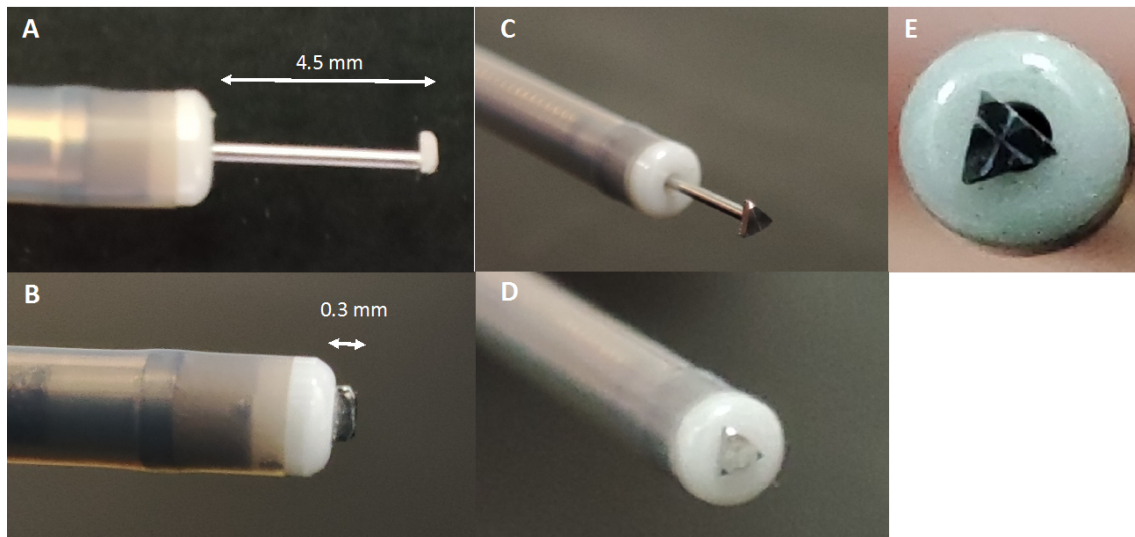


Fig. 2. Triangle Tip-Jet Knife. A. Lateral view with open position (4.5 mm length). B. Lateral view with close position (0.3 mm length). C. Open position "Standard use". D. Close position "Probe mode". E. Frontal view in "Probe mode".