

Endoscopic polypectomy devices

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Resection of GI polyps is one of the most commonly performed endoscopic procedures. This technology document provides an overview of currently available devices for polypectomy including snares, biopsy forceps, submucosal injection agents, and ancillary devices. Familiarity with these devices and techniques may lead to improved outcomes.

Polypectomy snares designed to entrap targeted tissue for resection are available in a variety of configurations that may or may not be used with electrocautery. Cold snare polypectomy and jumbo forceps polypectomy of diminutive and small polyps are associated with higher complete resection rates than cold forceps polypectomy. Cold snare polypectomy is recommended for resection of nonpedunculated polyps <10 mm. Hot biopsy forceps polypectomy is associated with high incomplete resection rates, suboptimal pathologic specimens, and high adverse event rates and thus are not routinely recommended but may be useful for hot avulsion of residual flat or fibrotic neoplastic tissue after snare polypectomy.

Submucosal injection agents are used to lift target lesions to facilitate polyp removal and create separation between the mucosal resection surface and deeper layers of the bowel wall to minimize the risk of deep thermal injury. Cold or hot snare polypectomy with or without submucosal injection is recommended for 10- to 19-mm nonpedunculated polyps without features of submucosal invasion. Routine clip closure after standard uncomplicated polypectomy does not reduce the risk of delayed postpolypectomy bleeding and is not recommended. Clip closure of mucosal defects may be considered in patients or lesions deemed

to be at higher risk for delayed postpolypectomy bleeding, including after EMR with electrocautery of lesions >20 mm in the right-sided colon segment. Pedunculated polyps with heads >20 mm or stalks >5 mm are recommended to undergo prophylactic mechanical ligation with either a detachable loop before resection or clip closure after resection to reduce the risk of immediate or delayed postpolypectomy bleeding.

DISCLOSURE

V. Chandrasekhara is a consultant for Covidien LP, is on the advisory board for Interpace Diagnostics, and is a shareholder in Nevakar, Inc. **N. Kumta** is a consultant for Boston Scientific Corporation, Gyrus ACMI, Inc., Olympus Corporation of the Americas, and Apollo Endosurgery US Inc. **B. Abu Dayyeh** is a consultant for Metamodix, BFKW, DyaMx, Hemostasis, and Boston Scientific Corporation; is a consultant and has received research support from Medtronic; has received research support from Apollo Endosurgery, USGI, Spatz Medical, GI Dynamics, Cairn Diagnostics, and Aspire Bariatrics.; is a speaker for Johnson and Johnson, Endogastric Solutions Inc., and Olympus Corporation of the Americas; has received travel compensation and food and beverage from Olympus Corporation of the Americas and Endogastric Solutions, Inc.; has received food and beverage from Boston Scientific Corporation, Covidien LP, Apollo Endosurgery US Inc, and Medrobotics Inc. **M. Bhutani** has received research grants from Silenseed Inc., Galera Inc, Oncosil Inc., Nanobiotix, and Augmenix Inc.; has received food and beverage from Augmenix Inc., Conmed Corporation, and Olympus Corporation of the Americas; has received travel compensation from Augmenix Inc. **P. Jirapinyo** is a consultant for Endogastric Solutions, and Lumendi; is a consultant and has received research support from GI Dynamics; has received research support from Apollo Endosurgery and Fractyl; has received travel compensation and food and beverage from Boston Scientific Corporation; and has received travel compensation from Olympus Corporation of the Americas.

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