

Cold snare polypectomy effective for removal of small colorectal polyps in patients on anticoagulants

March 21 2014

In recognition of National Colorectal Cancer Awareness Month, *GIE: Gastrointestinal Endoscopy* has published a special issue for March on colorectal cancer. The issue includes a new study that compares cold snare polypectomy with conventional polypectomy for the removal of small colorectal polyps in anticoagulated patients. The study showed that delayed bleeding requiring hemostasis (stoppage of bleeding) occurred significantly less often after cold snare polypectomy than during conventional polypectomy despite continuation of anticoagulants. *GIE: Gastrointestinal Endoscopy* is the monthly peer-reviewed scientific journal of the American Society for Gastrointestinal Endoscopy (ASGE).

The success of colonoscopy for the prevention of colorectal cancer is predicated on the ability to identify and remove precancerous lesions ([polyps](#)) from the colon and rectum. Many patients who are candidates for [colorectal cancer](#) screening also take anticoagulants and/or antiplatelet agents for treatment or prevention of cardiovascular or cerebrovascular diseases. Conventional polypectomy (polyp removal) without stopping the use of warfarin (used to prevent blood clots from forming or growing larger in the blood or blood vessels) in anticoagulated patients increases the risk of postpolypectomy bleeding by approximately 10 percent. Previous studies have also shown a significant increase in postpolypectomy bleeding rates among anticoagulated patients despite temporary stoppage of warfarin therapy.

Current practice guidelines for colonoscopy in patients requiring long-term anticoagulation consider polypectomy a high-risk procedure and recommend that anticoagulation be temporarily discontinued, irrespective of whether cold snare polypectomy or conventional polypectomy is used. However, temporary interruption of warfarin for endoscopic procedures is not without risk as such interruptions are associated with a thromboembolic risk of up to 3 percent.

"Our approach has been to perform screening endoscopy without stopping anticoagulation. If large polyps are found, patients are rescheduled and the procedure repeated after interruption of anticoagulation. With this approach and according to the guidelines, even when only small polyps (up to 10 mm) are found in patients receiving anticoagulants, the procedure must be rescheduled. Because it has been reported that removal of small polyps by cold snaring is associated with a low rate of adverse events, we hypothesized that cold snaring of small polyps could be done without stopping warfarin," said study lead author Akira Horiuchi, MD, Digestive Disease Center, Showa Inan General Hospital, Komagane, Japan. "This hypothesis was based on our belief that rebleeding is frequently related to damage to the submucosal vessels caused by the electrocautery in conventional polypectomy and that the cold snaring technique, without electrocautery, would cause minimal damage to the submucosal layer and thus delayed bleeding would be uncommon despite continuation of anticoagulation. In this study, we found that no delayed bleeding occurred after cold snare polypectomy, whereas endoscopic hemostasis for immediate and delayed bleeding was required after conventional polypectomy."

A polypectomy snare is a wire loop device used during colonoscopy designed to slip over a polyp and, on closure, results in cutting the polyp off at its stalk. Conventional snare polypectomy uses cautery, a hot wire with electrical current that cauterizes the tissue while removing the polyp. Cold snare polypectomy is a mechanical method that uses a snare

without electrical current, which has proven to be simple and safe without the potential risks involved in electrically induced heat.

Methods

This was a prospective randomized comparison of cold snare polypectomy vs. conventional polypectomy in anticoagulated patients with small [colorectal polyps](#). The study was done at the Showa Inan General Hospital in Japan. Subjects referred and scheduled for screening or surveillance colonoscopy were prospectively included in the study. Anticoagulated patients with colorectal polyps up to 10 mm in diameter were enrolled between March 2012 and December 2012. Patients were randomized to polypectomy with either cold snare technique (Cold group) or conventional polypectomy (Conventional group) without discontinuation of warfarin. The primary outcome measure was delayed bleeding (ie, requiring endoscopic intervention within two weeks after polypectomy). Secondary outcome measures were immediate bleeding and the retrieval rate of colorectal polyps. All procedures were performed by one of two experienced endoscopists (having performed more than 10,000 colonoscopies each).

Results

Seventy patients were randomized (total 159 polyps): Cold group (35 subjects with 78 polyps) and Conventional group (35 subjects with 81 polyps). The patients' demographic characteristics including international normalized ratio and the number, size, and shape of polyps removed were similar between the two techniques. Immediate bleeding during the procedure was more common with conventional polypectomy (23 percent) compared with cold polypectomy (5.7 percent). No delayed bleeding occurred in the Cold group, whereas five patients (14 percent) had delayed bleeding and required endoscopic hemostasis in the

Conventional group. Complete polyp retrieval rates were identical (94 percent vs. 93 percent). The presence of histologically demonstrated injured arteries in the submucosal layer with cold snare was significantly less than with conventional snare (22 percent vs. 39 percent). The researchers concluded that delayed bleeding requiring hemostasis occurred significantly less often after cold snare polypectomy than conventional polypectomy despite continuation of anticoagulants. Cold snare polypectomy is preferred for removal of small colorectal polyps in anticoagulated patients.

In an accompanying editorial, Hyun Gun Kim, MD, Institute for Digestive Research, Department of Internal Medicine, Soonchunhyang University College of Medicine, Seoul, Korea, and Shai Friedland, MD, Department of Gastroenterology, Stanford University School of Medicine and VA Palo Alto HCS, Stanford, California, state, "Although this well-designed study demonstrated unequivocally positive results, caution is necessary before these procedures can be implemented in generalized routine clinical practice. As the authors noted, a limitation of this study was its design: a single-center study with a small sample size. However, given the scarcity of rigorous prospective studies in the field, this study constitutes the best available clinical evidence, and it suggests that colonoscopy with polypectomy of lesions up to 1 cm with the use of the cold snare is safe in [patients](#) receiving anticoagulation even without prophylactic clipping. The pressing clinical question is whether screening and surveillance colonoscopy should be conducted with or without temporary interruption of anticoagulation. We should certainly consider and carefully evaluate the potential thrombotic risk posed by temporary interruption of anticoagulation for endoscopy." They also stated that, "The current study demonstrates that yes, we can perform screening colonoscopy and remove small polyps without interrupting anticoagulation."

Provided by American Society for Gastrointestinal Endoscopy

Citation: Cold snare polypectomy effective for removal of small colorectal polyps in patients on anticoagulants (2014, March 21) retrieved 4 May 2024 from

<https://medicalxpress.com/news/2014-03-cold-snare-polypectomy-effective-small.html>

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