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Enteron

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Best Regards,
Medical Team, Micro Labs Ltd

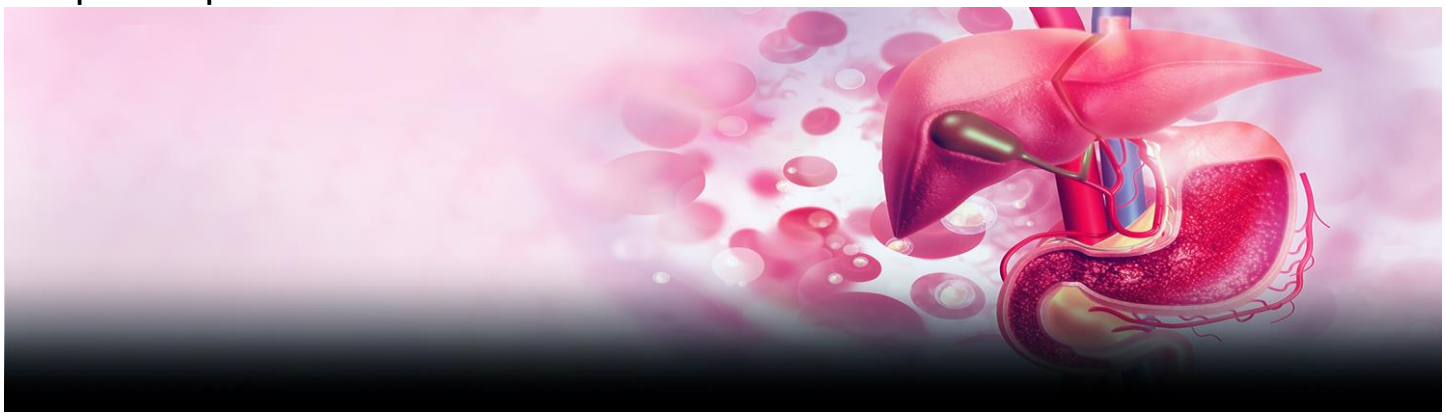
Latest CDC Guidance for Healthcare Personnel Exposed to HCV

Recent guidelines from the Centers for Disease Control and Prevention (CDC) describes a Health Care Personnel (HCP) "check and treat" approach for increased workplace access to hepatitis C virus (HCV).

The report's authors wrote the CDC's Morbidity and Mortality Weekly Report that the new guideline was partly created as a result of an increase in the incidence of acute HCV infection in the United States which increases the risk of occupational exposure among HCP. HCP could be introduced to source patients with early HCV infection in other health care facilities until certain patients show serological proof of infection or viral hepatitis-indicating symptoms.

The standards, which no longer suggest waiting for spontaneous resolution after initial diagnosis, include instructions and formulas for baseline and follow-up monitoring, appropriate method of study, and clinical management guidance. The guidelines were established based on an up-to - date literature review, professional advice from subject matter specialists and current guidance from the American Association for the Study of Liver Diseases (AASLD) and the American Infectious Diseases Society (IDSA).

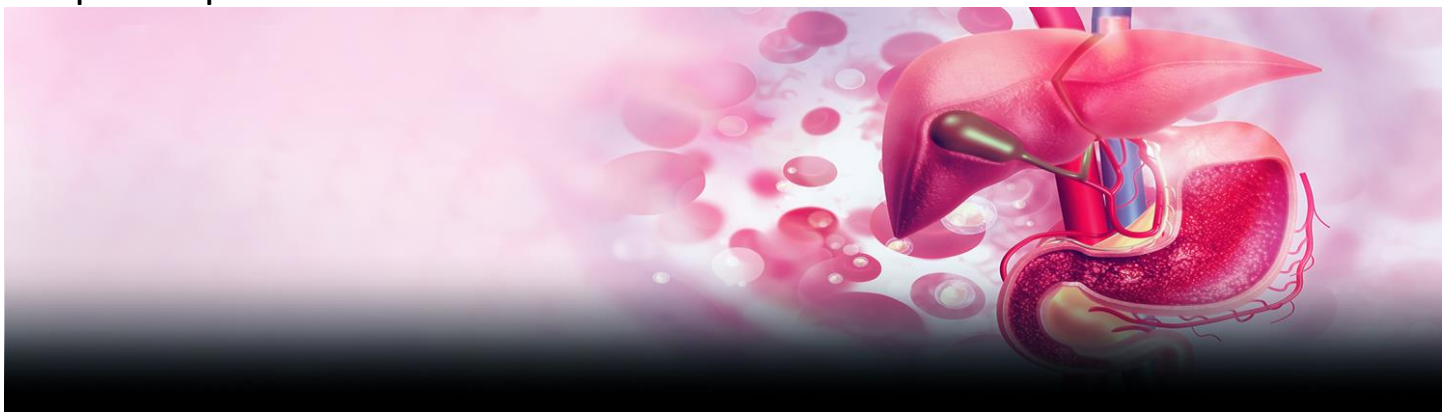
Baseline monitoring of source patient and HCP, ideally within 48 hours of treatment, will be done as early as possible. The root patient will undergo a nucleic acid check to monitor for HCV RNA. Additionally, anti-HCV serology screening can be conducted in patients at low risk for HCV, and if serology is positive, a nucleic acid check may be carried out.



Baseline HCP tests will involve anti-HCV monitoring, and HCV RNA tests should be prescribed when positive. HCPs who test positive for baseline HCV RNA are assumed to have a pre-existing HCV infection and will be recommended for treatment.

Follow-up monitoring is not needed for HCPs of blood or body fluid contact from a patient who is anti-HCV positive but HCV RNA negative. If the source patient is HCV RNA positive, even whether the source patient's status is uncertain, the authors suggest that exposed HCPs have 3 to 6 weeks' post-exposure HCV RNA follow-up examinations, in addition to baseline monitoring. A final anti-HCV examination is suggested at 4 to 6 months' post-exposure, as potential cycles of aviremia can arise during acute HCV infection. Exposed HCPs which develop signs of HCV infection indicative disease should be checked for HCV RNA at any time. For diagnosis and curative antiviral medication HCPs with positive HCV RNA check tests should be forwarded. Latest results have shown that the percutaneous exposure danger for HCV infection is 0.2% and mucocutaneous exposure is 0%. Based on this evidence, the CDC recommendations for HCPs with occupational exposure to HCV no longer prescribe regular post-exposure prophylaxis. In cases of reported HCV infection, curative antiviral regimens will be allocated instead.

Source: Centers for Disease Control and Prevention. MMWR Weekly: Current Volume (69). July 2020 available at https://www.cdc.gov/mmwr/index2020.html accessed on 29/07/2020



A new self-assembling peptide for haemostasis during endoscopic submucosal dissection

INTRODUCTION

A successful procedure for the treatment of superficial gastrointestinal (GI) neoplasia is endoscopic submucosal dissection (ESD). Nevertheless, owing to the high difficulty rate and the lengthy learning curve, its usage in the West has declined. Intraprocedural hemorrhage (IPB) is a commonly recognized risk. The standard way of regulating IPB is through electrocautery that is administered either through the tip of the knife or through the forceps of hemostatics. Application of heat can result in thermal mucosal injury which can cause perforation. There is also a chance of post-ESD electrocoagulation syndrome (PEECS), common with female patients, right-sided colonic lesions and > 4cm-sized lesions. Delayed bleeding is another factor correlated with ESD, varying from 1%-15% based on the site of the lesion, the duration and the usage of anticoagulants. Prophylactic clipping during colonic endoscopic resection shows little benefit, and prophylactic vessel coagulation across the resection base has only been seen to be successful in minimizing delayed post-gastric ESD bleeding. Recently, the advent of topical hemostats as complementary non-diathermic approaches for controlling bleeding. They are provided as inert powders and can be sprayed over the point of bleeding. Purastat (3D-Matrix Europe Ltd., France) is a new, self-assembled synthetic peptide approved to be used as a hemostat. The special, clear gel structure creates an extracellular scaffold matrix when triggered by the pH shift that happens while blood is in touch. Such matrix creates a robust mechanical shield over the bleeding spot, thereby promoting endogenous hemostasis in vivo.

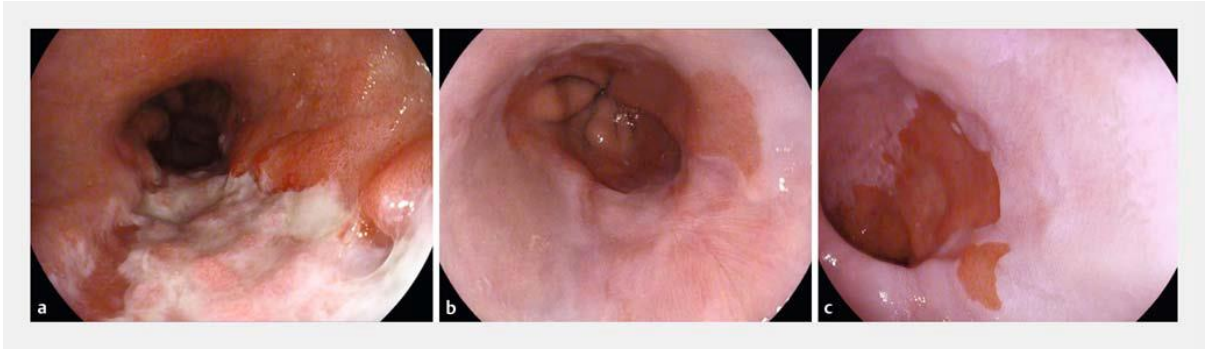
Recent preclinical trials studying this peptide demonstrated other advantages beyond its haemostatic effects, including accelerated healing of wounds. Purastat's first clinical trial was conducted in vascular medicine, where it was used in 25 patients at 33 vascular anastomotic locations. This also provides positive outcomes in nasal and cardiothoracic surgery. Its impact on accelerated bleeding and wound healing following ESD has shown potential inside endoscopy. Just one clinical review of 12 patients with gastric ESD tested its hantatic effectiveness – this revealed that it was successful in 92 per cent of cases. With no device-related adverse effects recorded, Purastat has been proved healthy. One significant drawback of the available data, though, is that all the experiments required a comparative control group. Purastat 's effectiveness in managing IPB during endoscopic resection is scarce. If, though, by managing any of the bleeds observed, it might reduce the need for thermal hemostasis, it would boost the ESD protection profile. The study's primary objective was to determine the decrease in the usage of heat for IPB therapy during ESD by utilizing Purastat as a hemostat. The secondary goal was to evaluate the duration of the operation, period for hemostasis, slow bleeding incidence, adverse effects, and healing of wounds in the interventional arm (Purastat) and control group.

METHODS

This was a single-center randomized controlled trial of 101 patients undergoing ESD. Participants were randomized to a control group where diathermy was used to control bleeding or an interventional group where Purastat could be used. Follow-up endoscopy was performed at 4 weeks to assess wound healing.

RESULTS

There was a significant reduction in the use of heat therapy for intraprocedural hemostasis in the interventional group compared with controls (49.3% vs. 99.6%, $P < 0.001$). There were no significant differences in the procedure length, time for hemostasis, and delayed bleeding rate between the groups. Complete wound healing at 4 weeks was noted in 48.8% of patients in the interventional group compared with 25.0% of controls ($P = 0.02$).



The stages of wound healing of the resection base following endoscopic submucosal dissection were categorized as: a healing ulceration; b scarring; c complete healing.

CONCLUSION

This research has demonstrated that Purastat is an efficient hemostat capable of reducing the need for heat therapy during ESD bleeding. This can also play a part in enhancing wound healing from post-resection.

REFERENCE

Subramaniam S, Kandiah K, Chedgy F, et al. A novel self-assembling peptide for hemostasis during endoscopic submucosal dissection: a randomized controlled trial [published online ahead of print, 2020 Jul 17]. Endoscopy. 2020;10.1055/a-1198-0558.

Single-bite against double-bite technique for mapping biopsies during endoscopic surveillance for hereditary diffuse gastric cancer

INTRODUCTION

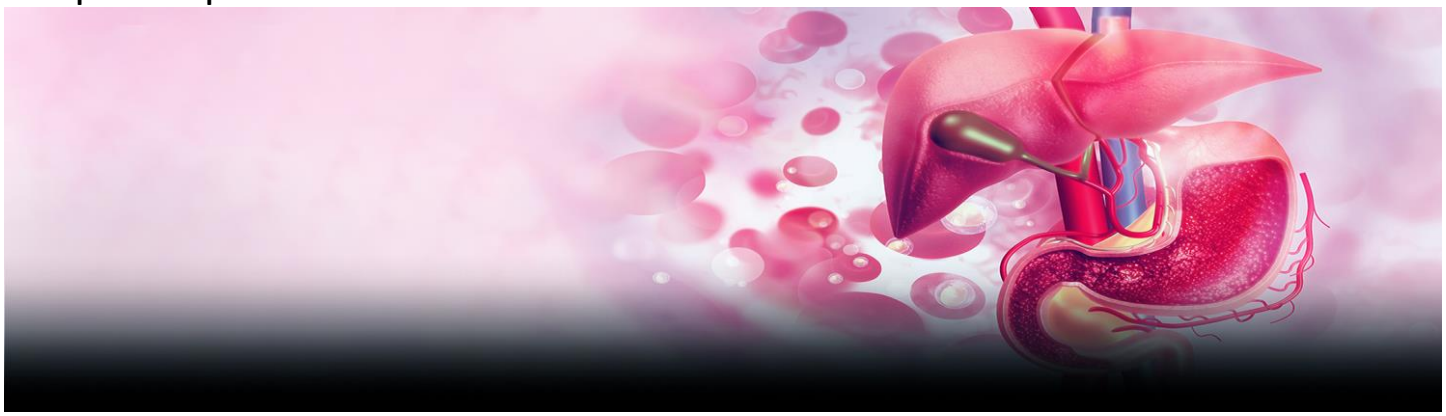
Around 3 percent of cases of gastric cancer arise as a consequence of inherited cancer predisposition syndromes, the most severe of which is genetic diffuse gastric cancer (HDGC). A germline mutation of the E-cadherin gene is present in 25%-30% of families who follow the HDGC clinical criterion, depending on the diffuse phenotype, age of initiation and number of cases in a lineage of three generations. The disease prevalence is high, with an average lifetime risk of gastric cancer of 70 per cent in men and 56 per cent in women, and a lifetime risk of lobular breast cancer in women of 42 per cent. Individuals known to carry a pathogenic variant of CDH1 are recommended to undergo complete gastrectomy which reduces the risk. Few people, however, tend to postpone gastrectomy for medical or psychosocial purposes, such as childbearing issues, career effects, apprehension of surgical harmful outcomes, or co-morbidities that raise the risks of surgery. Endoscopic testing is prescribed for such patients to include objective data to help in the decision-making phase. The uncertainty of cancer risk precludes surgery, and endoscopic screening is proposed to advise clinical management for families who follow HDGC's clinical guidelines but in which no known genetic source is found. Previous work confirmed the utility of endoscopic surveillance. The aim is to detect microscopic foci of in situ or intramucosal signet-ring cell carcinoma (SRCC) to inform the best timing of prophylactic gastrectomy in patients who want to delay surgery. Based on previous prospective studies, the yield of early SRCC is estimated to be 30%–61% in mutation carriers and 6%–10% in the absence of a pathogenic CDH1 mutation. This study aimed to compare single-bite and double-bite techniques in HDGC surveillance.

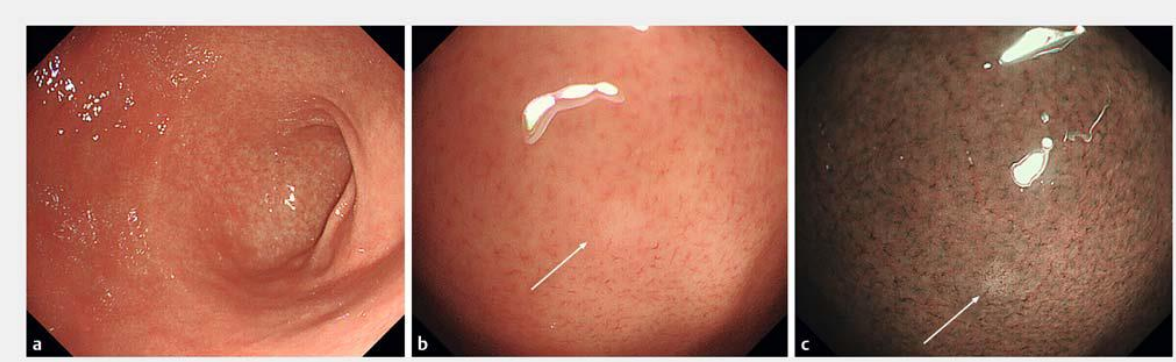
METHODS

Between October 2017 and December 2018, consecutive patients referred for HDGC surveillance were prospectively randomized to the single- or double-bite arm. The primary outcome was the diagnostic yield for SRCC foci. Secondary outcomes were: procedural time for random biopsies; comfort score; biopsy size; and quality of specimens, the latter assessed by the presence of muscularis mucosa, crush artifact, and proportion usable for diagnostic assessment.

RESULTS

25 patients were randomized to the single-bite arm and 23 to the double-bite arm. SRCC foci were detected in three and four patients in the single- and double-bite arms, respectively (P = 0.70). The procedural time for the double-bite arm (12 minutes, interquartile range [IQR] 4) was significantly shorter than for the single-bite arm (15 minute, IQR 6; P = 0.01), but comfort scores were similar. The size of the biopsies in the double-bite arm was significantly smaller than in single-bite arm (2.5mm vs. 3.0 mm; P < 0.001) but this did not affect the presence of muscularis mucosa (P=0.73), artifact level (P = 0.11), and diagnostic utility (P = 0.051).





Images of a case of intramucosal signet-ring cell carcinoma detected within the pale area showing: a normal-appearing mucosa on panoramic view of the antrum; b a detailed view of the pale area on white-light endoscopy; c a detailed view of the pale area on narrow-band imaging, which allows better delineation of the margins.

CONCLUSION

The double-bite technique is considerably faster for patients receiving HDGC monitoring than the single-bite technique. The diagnostic yield on SRCC and the consistency of the biopsy were identical in all categories.

REFERENCE

Pappas A, Tan WK, Waldock W, et al. Single-bite versus double-bite technique for mapping biopsies during endoscopic surveillance for hereditary diffuse gastric cancer: a single-center, randomized trial [published online ahead of print, 2020 Jul 17]. Endoscopy. 2020;10.1055/a-1201-3125.