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**REVIEW**

- 323 Endoscopic retrograde cholangiopancreatography guided interventions in the management of pancreatic cancer  
*Yousaf MN, Ehsan H, Wahab A, Muneeb A, Chaudhary FS, Williams R, Haas CJ*

**ORIGINAL ARTICLE****Retrospective Cohort Study**

- 341 Assessing the yield and safety of endoscopy in acute graft-*vs*-host disease after hematopoietic stem cell transplant  
*Rajan AV, Trieu H, Chu P, Lin J, Kidambi TD*

**Retrospective Study**

- 355 Role of endoscopic ultrasound in pediatric patients: A single tertiary center experience and review of the literature  
*Altonbary AY, Hakim H, Elkashef W*

**Observational Study**

- 365 Defining the advantages and exposing the limitations of endoscopic variceal ligation in controlling acute bleeding and achieving complete variceal eradication  
*Krige J, Jonas E, Kotze U, Kloppers C, Gandhi K, Allam H, Bernon M, Burmeister S, Setshedi M*
- 378 Predictor of respiratory disturbances during gastric endoscopic submucosal dissection under deep sedation  
*Aikawa M, Uesato M, Urahama R, Hayano K, Kunii R, Kawasaki Y, Isono S, Matsubara H*

**SYSTEMATIC REVIEWS**

- 388 Fluorescence guided intraluminal endoscopy in the gastrointestinal tract: A systematic review  
*Mortensen OE, Nerup N, Thorsteinsson M, Svendsen MBS, Shiwaku H, Achiam MP*

**LETTER TO THE EDITOR**

- 401 Real-world clinical data of endoscopy-based cancer detection during the emergency declaration for COVID-19 in Japan  
*Yoshida S, Nishizawa T, Toyoshima O*
- 404 Endotracheal intubation in patients with COVID-19 using an ultrathin flexible gastrointestinal endoscope  
*Masaki S, Yamada C, Kawamoto T*

**ABOUT COVER**

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The primary aim of *World Journal of Gastrointestinal Endoscopy* (*WJGE*, *World J Gastrointest Endosc*) is to provide scholars and readers from various fields of gastrointestinal endoscopy with a platform to publish high-quality basic and clinical research articles and communicate their research findings online.

*WJGE* mainly publishes articles reporting research results and findings obtained in the field of gastrointestinal endoscopy and covering a wide range of topics including capsule endoscopy, colonoscopy, double-balloon enteroscopy, duodenoscopy, endoscopic retrograde cholangiopancreatography, endosonography, esophagoscopy, gastrointestinal endoscopy, gastroscopy, laparoscopy, natural orifice endoscopic surgery, proctoscopy, and sigmoidoscopy.

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## Real-world clinical data of endoscopy-based cancer detection during the emergency declaration for COVID-19 in Japan

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### Abstract

The impact of the coronavirus disease 2019 (COVID-19) pandemic is widespread throughout the world, causing serious damage to healthcare systems. Therefore, we examined the significance of endoscopy based on the recommendation of Asian-Pacific Society for Digestive Endoscopy and Japan Gastroenterological Endoscopy Society during the COVID-19 pandemic by evaluating the details of gastrointestinal endoscopy performed during the declaration of emergency in Japan. We have continued performing gastrointestinal endoscopy at an outpatient clinic that specialized in endoscopic medical care in Tokyo, Japan. During the emergency declaration period, 544 patients underwent gastrointestinal endoscopy. As a control, we investigated 1327 patients who underwent gastrointestinal endoscopy during the same period in 2019. Although the total number of endoscopies during the emergency declaration was halved, the advanced cancer detection rate during the emergency declaration was significantly higher than that in 2019 ( $P = 0.04$ ). Additionally, no COVID-19 infection was observed in healthcare workers, staff, or patients during this period. It is possible that an outpatient endoscopy units can contribute to the detection of advanced cancer, while the hospital in charge for patients with COVID-19 infection could not perform endoscopy during the declaration of emergency.

**Key Words:** COVID-19; Pandemics; Gastrointestinal; Endoscopy; Neoplasms; Personal protective equipment

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**Core Tip:** It is possible that an outpatient endoscopy units can contribute to the detection of

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advanced cancer, while the hospital in charge for patients with coronavirus disease 2019 (COVID-19) infection could not perform endoscopy during the declaration of emergency. Gastrointestinal endoscopy may be one of the safety nets in the COVID-19 pandemic to not delay the diagnosis of advanced, life-threatening cancers.

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## TO THE EDITOR

We read with interest the recent paper by Olszewski *et al*<sup>[1]</sup> reporting their best practice outline for endoscopy during the coronavirus disease 2019 (COVID-19) outbreak. As the authors describe, we strongly feel the need to change our practice to incorporate these factors to improve the safety of patients, health care providers, and community as a whole during this disaster.

Our facility is an outpatient clinic that specialized in endoscopic medical care in Tokyo, Japan. We have continued performing gastrointestinal endoscopy according to the recommendations of Asian-Pacific Society for Digestive Endoscopy (APSD)<sup>[2]</sup> and Japan Gastroenterological Endoscopy Society (JGES)<sup>[3]</sup>. We would like to introduce our successful approach.

First, patients were categorized as high-risk or low-risk using the ASPDE and JGES risk assessment at reception and endoscopy was only performed in low-risk patients. Endoscopy was not applicable when any of the following criteria were met: (1) Patients with respiratory infection; (2) Patients with a body temperature  $\geq 37.5$  °C; (3) Patients who were in close contact with subjects in an endemic area within the last 2 wk; (4) Patients who traveled to endemic areas within the last 2 wk; and (5) Patients complaining of symptoms due to COVID-19 infection.

Second, the indications for endoscopy were limited as follows: Symptomatic patients, patients with abnormalities in other tests, patients with previous appointments, and patients who strongly wished for investigation. A new reservation for asymptomatic patients or surveillance endoscopy was not accepted.

We were focused on preventing COVID-19 infection in healthcare workers using personal protective equipment, including gloves, hairnets, protective eyewear (goggles or face shield), and waterproof gowns. To prevent the inhalation of airborne droplets and aerosolized virus<sup>[4,5]</sup>, we wore a surgical mask or N95 during the endoscopy procedure. We also applied a surgical mask with a handmade scope insertion port (Figure 1) for patients during the upper-endoscopy procedure. The patients changed their shoes to slippers at the entrance, measured their body temperature, washed their hands and gargled in the washroom, wore a mask, and maintained social distancing.

To improve the environment of the endoscopic room, we ventilated the examination room and the waiting rooms about 6 times/h (about 2 times/h of the outside air volume), installed an air purifier, and employed specialized staff to clean the clinic.

During the emergency declaration period (between April 7th and May 26th in 2020), 544 patients (311 for upper endoscopy and 233 for colonoscopy) underwent gastrointestinal endoscopy. Table 1 shows the comparison of gastrointestinal endoscopy performed in 2020 and the same period in 2019. The total number of endoscopies during the emergency declaration was halved. There was no significant difference in the cancer detection rate between 2019 and 2020. For advanced cancer, the detection rate during the emergency declaration period was higher than that during the same period in the last year ( $P = 0.04$ ). As a result of the above precautions, no COVID-19 infection was observed in healthcare workers, staff, or patients during this period.

As one of the factors of this higher detection rate in advanced lesion, it may have been possible to enrich cases with findings based on strict adaptation criteria of the endoscope. It is possible that an outpatient endoscopy units can contribute to the detection of advanced cancer, while the hospital in charge for patients with COVID-19 infection could not perform endoscopy during the declaration of emergency.

Gastrointestinal endoscopy based on the recommendations of APSDE and JGES

Table 1 Comparison of gastrointestinal endoscopy performed in 2019 and 2020

	2020	2019	P value
Upper endoscopy, <i>n</i>	311	790	
Colonoscopy, <i>n</i>	233	537	
Total, <i>n</i>	544	1327	
Age (yr ± SD)	55.2 ± 13.4	55.8 ± 13.2	0.34
Sex, male (%)	53.9	47.3	0.01
All malignancies, <i>n</i> (%)	6 (1.1)	8 (0.6)	0.40
Advanced lesion, <i>n</i> (%)	5 (0.9)	2 (0.2)	0.04
Early lesion, <i>n</i> (%)	1 (0.2)	6 (0.5)	0.66



Figure 1 A surgical mask for patient during procedure with a handmade scope insertion port.

may be one of the safety nets in the COVID-19 pandemic to not delay the diagnosis of advanced, life-threatening cancers. Our clinic was able to play an important role even during the declaration of emergency.

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