

Therapeutic options for emergency gastrointestinal malignancy in COVID19 pandemic. The role of operative endoscopy

Editor

The concept that medical facilities and health workers might be an important contamination route in the pandemic has brought to consequences and attitudes for the population as well for legislators. In the pandemic period, most of the patients requiring intervention for gastrointestinal malignancy are in emergency, no-deferrable conditions. We reviewed the results of operative endoscopy to treat emergencies secondary to gastrointestinal

malignancy during the lock down period in Italy, from March 11th to April 28th. The study was approved by the Ethical Board of the University. All patients gave written informed consent. Endoscopy for no COVID 19 patients was performed in a dedicated room. COVID 19 and no COVID 19 patients had completely different routes. Protections were those suggested by the WHO^{1,2,3}. Seventy patients underwent emergent endoscopic operative procedures. There was no operative mortality and no major complication. Out of the 70 operative procedures, 21 were performed for malignancy-related emergencies (Table 1). Retrospective review by the surgical team considered

that in usual times, 10 of those patients might have had open or laparoscopic surgery. During the same period 199 patients underwent diagnostic operative endoscopy; eight patients were COVID19 positive. At a mean follow-up of 1 month from the procedure, all the health workers and the initially negative COVID19 patients were asymptomatic and COVID19 negative. In the pandemic surgeons have postponed or cancelled many elective treatments, reserving admission to the hospital only to patients with malignancy which could pose a threat to survival. Even patients with malignancy try to avoid medical facilities if possible. There is a general attitude to prefer therapeutic schema


Table 1 Endoscopic operative procedure during COVID 19 pandemic in patients with malignancy-related emergencies. Percutaneous Endoscopic Gastrostomy (PEG); Endoscopic Retrograde Cholangio- Pancreatography (ERCP); Self-Expandable Metallic Stent (SEMS); Endoscopic Variceal Band Ligation (EVBL); Argon Plasma Coagulation (APC) laser

Procedure	Age	Sex	Indications	General Conditions	Complications	SARS-CoV-2
SEMS Positioning	80	F	Antro-pyloric cancer	Serious but stable clinical conditions	Vomiting in the 3 days following the procedure	Negative
	51	F	Colonic cancer	Serious but stable clinical conditions	No complications	Negative
	66	F	Antro-pyloric cancer	Serious but stable clinical conditions	No complications	Negative
	67	M	Rectal cancer	Serious but stable clinical conditions	No complications	Negative
	60	M	Colonic cancer	Serious but stable clinical conditions	No complications	Negative
ERCP (with metallic biliary prosthesis positioning SEMS)	44	F	Carcinoma of the head of the pancreas	Fair clinical conditions	Hyperamylasemia and hyperlipasemia	Negative
	68	M		Serious but stable clinical conditions	No complications	Negative
	57	M		Fair clinical conditions	No complications	Negative
	70	M		Serious but stable clinical conditions	No complications	Negative
	74	M		Serious but stable clinical conditions	No complications	Negative
	66	F		Fair clinical conditions	No complications	Negative
	47	M		Fair clinical conditions	Hyperamylasemia and hyperlipasemia	Negative
EMR (carcinoma in situ-T1)	52	M	Faecal occult blood +	Fair clinical conditions	No complications	Negative
	67	M	Faecal occult blood +	Fair clinical conditions	No complications	Negative
Polipectomy (Carcinoma in Situ)	75	M	Polyps of the colon	Fair clinical conditions	No complications	Negative
	65	F	Faecal occult blood +	Fair clinical conditions	No complications	Negative
	60	M	Anemia	Fair clinical conditions	No complications	Negative
	63	F	Rectal bleeding	Fair clinical conditions	No complications	Negative
	69	M	Rectal bleeding	Fair clinical conditions	No complications	Negative
	79	M	Anemia, Faecal occult blood +	Fair clinical conditions	No complications	Positive

which imply reduced risk for complications and hospital admission^{4,5}. Visits from relatives are not allowed, so that the patient undergoing major surgery should expect a significant isolation time with inevitable negative psychological consequences. Cancer and cancer-related treatments frequently cause immune suppression, and patients with cancer have excess mortality risk from severe acute respiratory syndrome. General anesthesia with endo-tracheal intubation, postoperative pain, Intensive Care Unit permanence are some of the most common risk factors for postoperative pulmonary complications. Operative endoscopy generally requires shorter operative time, no general anesthesia and tracheal intubation, and less organizational efforts. Hospital stay is shorter. Pulmonary complications and infection-related complications are lower after operative endoscopy. A smaller number of health workers is involved, intensive care unit is rarely required. Operative endoscopy should be evaluated in the pandemic differently than in usual times. Endoscopic procedures which have the same results of standard surgery, or even a marginal less effective result, should be preferred. The possibility to defer the standard, more effective surgical operation at later times, after having resolved the emergency situation by a less risky endoscopic procedures, is a reasonable clinical perspective. Placement of self-expandable metal

stents to relieve malignant colorectal or gastric obstruction represents a valid temporary choice, deferring definitive surgery, if required in more convenient times. Malignant obstructive jaundice, associated or not with gastric outlet obstruction, can be relieved by stent placement. The endoscopic removal of a bleeding small colorectal cancer (Carcinoma in situ-T1-T2) may represent a valid choice, deferring any major resection if any during the follow-up period.

The appropriate therapeutic approach to patients should be tailored considering also the capability of the local health care system to meet existing and projected needs after surgery, including level and phase of the pandemic and local facilities inevitably limits. In the pandemic period operative endoscopy may represent a valid alternative (definitive or temporary) to generally accepted standard surgical solutions. Each patient should be evaluated in his/her specificity considering clinical conditions, expectations, personal needs and level and stage of the pandemic.

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- 1 Goh SSN, Yeo DXW, Kaushal SA, Yeong HK, Tan GWL. Surgical and endoscopy protocols for general surgeons during the COVID-19 pandemic: an institutional experience in Singapore. *Br J Surg* 2020; <https://doi.org/10.1002/bjs.11696> [Epub ahead of print].
- 2 CovidSurg. Elective surgery cancellations due to the COVID-19 pandemic: global predictive modelling to inform surgical recovery plans. *Br J Surg* 2020; <https://doi.org/10.1002/bjs.11746> [Epub ahead of print].
- 3 Jessop ZM, Dobbs TD, Ali SR, Combella E, Clancy R, Ibrahim N *et al*. Personal Protective Equipment (PPE) for Surgeons during COVID-19 Pandemic: A Systematic Review of Availability, Usage, and Rationing. *Br J Surg* 2020; <https://doi.org/10.1002/bjs.11750> [Epub ahead of print].
- 4 Sterpetti AV. Lessons learned during the COVID 19 pandemic. *J Am Coll Surg* 2020; **230**: 1092–1093.
- 5 Sterpetti AV COVID-19 diffusion capability is its worst, unpredictable characteristic. How to visit a patient from a distance. *Br J Surg* 2020; **107**: e181.