Gut – IDDF Young Investigator Award

Basic Gastroenterology

IDDF2021-ABS-0153

MANAGEMENT OF COVID POSITIVE EMERGENCIES IN DEPARTMENT OF GASTROINTESTINAL SURGERY & MANAGEMENT ALGORITHM

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Background Covid positivity along with Gastrointestinal pathology can coexist as the most challenging emergencies in Covid time. No RCT exists in the world literature, and our experience and knowledge are enhanced by reporting results of emergency case series of surgical and nonsurgical management of GI emergencies. This can help the world over Gastrointestinal specialists in managing such cases in the covid era.

Abstract IDDF2021-ABS-0153 Figure 1

Methods Total 8 cases included, all cases presenting as emergency also found as covid positive were included. No elective surgery performed in covid +ve cases as protocol. All patients were worked up from preoperative surgical and covid related

Abstract IDDF2021-ABS-0153 Figure 2

Abstract IDDF2021-ABS-0153 Figure 3

Abstract IDDF2021-ABS-0153 Table 1

AGE	CT Sev	vaccine	O2	CECT ABD/DIAGNOSIS	TLC	D DIMER	SURGERY	STAY	FINAL PATHOLOGY	RESULT
86m	14	1	Y	Sev acute pancreatitis	25000	>5000	Not operated	15d	SEV acute pancreatitis ? covid induced	Survived
72m	14	1	Y	Cecal perforation	18000	>2500	RT COLECTOMY with colostomy 7m/f	20d	Amebic cecal perforation	Survived
46f	0	1	N	Multiple bowel strictures	7000	<500	Bowel resection	7d	Infl. strictures	Survived
56m	17	1	Y	Traumatic Gut gangrene	22000	>5000	Bowel resection & ileostomy + m/f	20d	Traumatic gangrene perf	Survived
19m	0	no		abd kochs	6000	<500	Laparotomy & Biosy	3d	Milary abd kochs	survived
35f	0	no		Abd wall abscess	7000	NA	I&d	2d	E coli	survived
75m	0	no		Perianal abscess on chemotherapy	4500	NA	I&d	7d	E coli	survived
46m	0	no	N	Cecal perforation	18000	>3500		6d	Inflammatory cecal perforation	Survived

Abstract IDDF2021-ABS-0153 Figure 4

Abstract IDDF2021-ABS-0153 Figure 5

points of view. Extreme urgent surgery was taken after covid antigen, otherwise RT PCR was awaited, HRCT chest was

done in all cases. Very sick patients in whom patients covid status and chest could be optimised while keeping surgery for a later time after optimization. Covid specific treatment given was mainly oxygen anticoagulants, steroids and vitamin c. GI pathologies operated were cecal amebiasis (n=2; IDDF2021-ABS-0153 Figure 1, IDDF2021-ABS-0153 Figure 2), abdominal abscess (n=2), multiple bowel strictures (n=1; IDDF2021-ABS-0153 IDDF2021-ABS-0153 Figure 3), abdominal Kochs (n=1; IDDF2021-ABS-0153 Figure 4), traumatic gut gangrene (n=1; figure 5) and nonoperative management in (n=1) severe acute pancreatitis. Affected patients were having age 86-17 and had CT severity scores of 0-17 (IDDF2021-ABS-0153 Table 1). 7/8 underwent emergency surgery, no operations were performed in covid dedicated modular Operation theatre with airflow 25 per minute with all staff wearing N95 +3 ply mask or respirators (3M) and no health care worker was covid infected after operations.

Results All patients recovered well from covid as well as from gastrointestinal pathologies. Duration of stay ranged from 2-20 days. 4/8 were already vaccinated with 1 dose of covishield that may be an important factor amenable to further research. All algorithms were followed flow chart 1. All HCW were doubly vaccinated, no HCW was infected with covid. The inferences drawn here are based on a small but daring case series, in the time where most HCW was not taking covid surgeries in our state.

Conclusions Life-threatening covid illness can present with life-threatening gastrointestinal pathology. Well optimised patients can have similar results as non-covid cases.

IDDF2021-ABS-0158 SMALL EXTRACELLULAR VESICLES DERIVED FROM ESOPHAGEAL SQUAMOUS CELL CARCINOMA PROMOTE IMMUNOSUPPRESSIVE EFFECTS OF MYELOID-DERIVED SUPPRESSOR CELLS AFTER IONIZING RADIATION

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Background Radiation therapy is effective in achieving local control in esophageal squamous cell carcinoma (ESCC), yet there is evidence to suggest that changes in the tumour micro-environment induced by radiation can also promote metastasis. We investigated if ionizing radiation is capable of promoting immunosuppressive effects of myeloid-derived suppressor cells (MDSCs) through ESCC-derived small extracellular vesicles (sEVs).

Methods PBMCs from healthy donors were cocultured with sEVs derived from ESCC cell lines before and after radiation. The proportion of MDSCs and their immunosuppressive function were analysed. ESCC were induced by 4-nitroquinoline-1-oxide (4NQO) in C57BL/6 mice. The MDSC proportion and function of ESCC bearing mice were analyzed and RNA-seq was performed in MDSCs before and after radiation. sEVs from the plasma of ESCC-bearing mice before and after radiation was isolated and injected into healthy C57BL/6 mice to investigate their effects to MDSCs. Small RNA-seq of sEVs derived from Kyse 30 before and after radiation was performed. The function of changed microRNAs in sEVs was