CHANGES IN PATTERN OF PRESENTATION OF ACUTE APPENDICITIS DURING THE COVID-19 PANDEMIC

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Background:

The COVID-19 Pandemic was declared by the WHO in early March 2020.

Affected the pattern of presentation, management, and outcomes of patients with acute appendicitis presenting to a hospital in New York City whith high rates of COVID-19 infection.

We hypothesized that due to the pandemic there would be a potential shift towards nonoperative management due to patient's preference or due to delayed presentation

Methods:

- Retrospective chart review at a single Institution
- General Surgery patients >13years old with acute appendicitis

Clinically

Radiologically

March to June 2019

March to June 2020

Figure #1: symptoms during 2019 vs 2020.

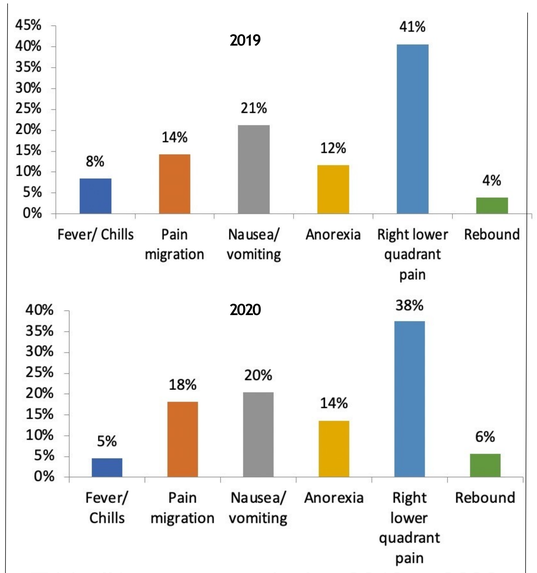


Table #1: outcomes during 2019 vs 2020.

Variables	2019	2020	p-value
Age	37.91	36.73	0.36
BMI	30.14	26.99	0.02
Days to presentation	4.64	1.73	0.01
Length of stay	2.64	3.11	0.2
WBC	12.45	16.57	0.13
% Neutrophils	78.166	81.56	0.08
Non-op days to presentation	12.4	2	0.05
Non-op length of stay	4.4	6.37	0.13

Results:

Fewer patients presentated during the COVID-19 pandemic.

Earlier presentation during the COVID-19 pandemic (4.64 vs. 1.73 days).

More surgery during the COVID-19 pandemic.

No significant difference in length of stay between the groups (2.6 days vs 3.1 days).

More readmissions within 30 days in the 2019 cohort (7 vs 0 %).

No mortalities during either group.

Table #2: outcomes during 2019 vs 2020.

2019	Age	BMI	Days to presentation	HR	Temp	SBP	WBC	%Neu	Length of stay
Mean	37.91	30.14	4.65	85.04	97.6	127.1	12.46	78.17	2.65
SD	17.03	9.44	10.89	14.16	7.56	16.57	4.31	14.11	2.4
2020									
Mean	36.74	27	1.74	87.36	98.76	129.24	12.98	81.56	3.12
SD	16.09	5.84	1.29	20.34	1.09	16.02	4.07	10.11	2.83

Conclusions:

Early presentation associated with early operative management proved to be safe during the pandemic.

Nonoperative management prolonged length of stay.

Laparoscopic appendectomy remains the operative management for acute uncomplicated appendicitis.

Proper safety measure allow the continuation of surgical management of patients.

Ruben D. Salas Parra[1], Cesar Riera-Gonzalez[1], Lauren Stantley[2], Georgette Nader[2], Muhammad Sultan[1], Vinayak S. Gowda[1].
[1] Bronxcare Health System. Department of Surgery. Bronx, NY.
[2] American University of the Caribbean School of Medicine. Sint Maarten.