



Prevalence and outcome of asymptomatic procedural patients with COVID-19 infection

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Introduction

- Guidelines recommend testing for SARS-CoV-2 in asymptomatic individuals who are undergoing time-sensitive major surgery or aerosol generating procedures (AGPs) to:
 - Guide infection prevention practices
 - Minimize risk of potential poor outcomes associated with COVID-19 infection by delaying the procedure in positive patients
- However, evidence to support these recommendations are limited
- We implemented a system-wide policy to test all patients requiring AGPs 48 hours prior to the procedure
- We describe the outcome of asymptomatic patients with SARS-COV-2 undergoing surgery or AGPs

Materials and Methods

Study Design

- Retrospective review of asymptomatic procedural patients between 5/1/2020-5/31/2020

Setting and Population

- Henry Ford Health System, a 5-hospital system in southeast Michigan
- All Patients with positive polymerase chain reaction (PCR) of upper respiratory tract were included

Data Collection

- Demographics
- Comorbidities
- Procedural/surgical categories
- Symptoms
- Outcome

Analysis

- Descriptive analysis was utilized

Table 1. Characteristics of asymptomatic patients with COVID-19 infection

	Total N= 18 (%)	Symptomatic within 14 days N=2 (%)	Asymptomatic within 14 days N=16 (%)
Age, years	49.7	42	50.7
Gender			
Male	7 (39)	0	7 (44)
Female	11 (61)	2 (100)	9 (66)
Race			
White	6 (33)	1 (50)	5 (31)
Black	12 (67)	1 (50)	11 (69)
Comorbidities			
COPD	1 (6)	0	0
HTN	6 (33)	0	6 (38)
Diabetes	0	0	0
CHF	2 (11)	1 (50)	1 (6)
ESRD	1 (6)	0	1 (6)
Malignancy	2 (11)	1(50)	1 (6)
Organ Transplant	1 (6)	0	1 (6)
Rheumatoid Arthritis	2 (11)	0	2 (12)
BMI	30.9	22.9	32.0
Tobacco Use			
Current	2 (11)	0	2 (12)
Former	5 (28)	1 (50)	4 (25)
Never	11 (61)	1 (50)	10 (63)

Table 2: Outcome of procedure in asymptomatic patients with COVID-19

Procedure Type	Total N=18 (%)	Performed N=6 (%)	Delayed N=4 (%)	Canceled N=8 (%)
Cardiac	3 (17)	1 (17)	0	2 (25)
Gastrointestinal	6 (33)	1 (17)	2 (50)	3 (38)
Genitourinary	2 (11)	1 (17)	0	1 (13)
Orthopedic	6 (33)	3 (50)	2 (50)	1 (13)
Interventional radiology	1 (6)	0	0	1 (13)

Results

- 4381 SARS-CoV2 PCR tests were performed pre-procedurally during the study period, of which 18 (0.4%) were positive (Table 1)
 - Mean age was 49.7 years
 - The majority of patients were female (61%) and black (67 %)
 - Hypertension was the most common comorbidity
 - BMI was higher in the asymptomatic patients
- 6/18 (33%) surgeries were performed despite positive SARS-CoV2 PCR (Table 2)
 - Of these, none developed symptoms within 14 days
- 8/18 (44%) had their procedure canceled
 - Two (25%) patients symptoms within 14 days of testing positive
 - All patients with delayed procedures remained asymptomatic
 - None of the patients who tested positive required hospitalization or died

Discussion

- The prevalence of COVID-19 infection was very low in our asymptomatic patient population
- Decisions around SARS-CoV-2 testing in asymptomatic patients undergoing procedures should be based on exposure history and prevalence of disease in the community to avoid unnecessary testing and diversion of resources away from symptomatic patients

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