Case presentation: Cavitary lung lesion in COVID19

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Patient characteristics

Age: 61yo  Gender: M  BMI: 37

Hospital course: Vent day 23 (COVID pneumonia)

PMHx: HFrEF, HTN, HLD, obesity, childhood rickets

PsurgHx: None

SHx: Smoker, former EtOH, no IVDU

FHx: n/c

Rx (home): Lisinopril, aldactone, aspirin, statin, coreg, zofran
Day 24: slightly increasing O2 requirement
Day 28: continued low grade fever despite antibiotics

Figure A: Computerized tomography (CT) thorax on admission with bilateral peripherally based ground glass opacities consistent with the diagnosis of COVID-19. Axial view.

Figure B: Repeat CT thorax of the same patient revealing a new cavitary lung lesion (red arrow) in the right upper lobe one month after initial diagnosis of COVID-19. Axial view.
Labs

WBC: Elevated, but unchanged

Procalcitonin: Elevated, but unchanged

Sars CoV 2: Negative as of hospital day 28

Respiratory culture: Normal flora, plus some mold

Serum galactomannan: Negative
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*Mold speciates to Aspergillus fumigatus;

**Antibiotic therapy tailored to voriconazole
Outcome

Voriconazole initiated on hospital day 31 (plan for 10-12 week course)

Patient defervesced by hospital day 33

Underwent trach and PEG on hospital day 43

Awake and conversing with family and staff as of hospital day 49

Discharged from inpatient care on hospital day 53; currently recovering in LTAC
Invasive Pulmonary Aspergillosis in COVID-19

Frequent complication of severe influenza pneumonia (possibly 7-23% of cases)

Often only diagnosed post-mortem (mortality of 40-60%)

European case series suggest IPA may complicate ~33% of COVID-19 ARDS

- Alanio et al, Lancet Respi Med, 5/20/2020
- Rutsaert et al, Annals of Int Care, 6/1/2020
- Koehler et al, Mycoses, 4/27/2020
- Van Arkel et al, AJRCCM, 5/12/2020

Radiopaedia.org
Diagnosis and Management

Bronchoscopic biopsy and histopathology is gold standard of diagnosis.

Clinical diagnosis often requires high suspicion and mycologic testing.

Voriconazole is the preferred therapy.

Amphotericin and echinocandins are alternative therapies.
Take away points

Increasing concern for co-infection with COVID19 and IPA

Poor sensitivity of serum galactomannan (21-65%)

Consider BAL galactomannan (non-bronchoscopic lavage)

Maintain high index of suspicion

Consider initiation of anti-fungal therapy

Key questions:

- Role of screening
- Role of prophylaxis
- Standard case definitions