COVID 19 Clinical Rounds Critical Care: COVID Patient Long Term Challenges

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I have no financial disclosures

Case Presentation

- 57 year old male
- Type II diabetes mellitus, hyperlipidemia, hypertension, coronary artery disease
- Presenting with fevers, dyspnea and diarrhea
- Multiple sick family contacts
- Prior tobacco use

Case Presentation

- 85% on room air on arrival in ED

- Markedly tachypneic

- COVID nasopharyngeal swab PCR positive

- NRB → HHFNC

- D-Dimer → 1003

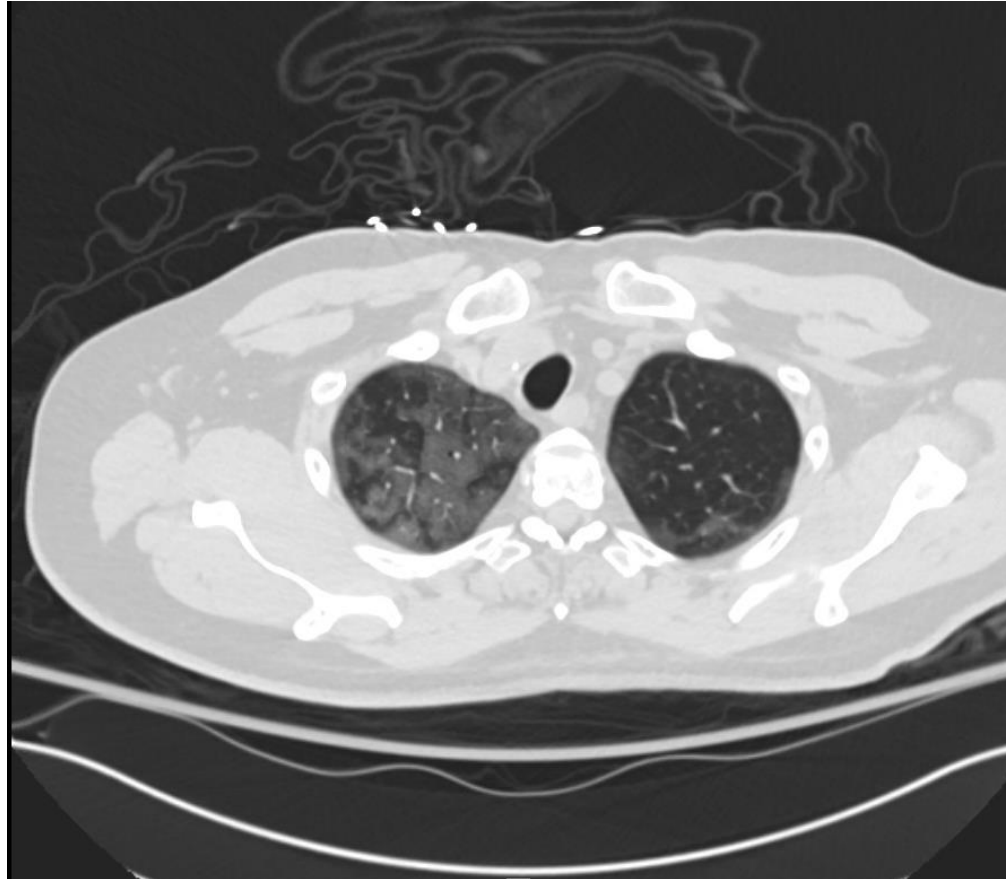- POCUS with unremarkable LV/RV, diffuse B lines and no evidence of DVTs

Case Presentation

Case Presentation

- Decadron
- Self proning
- Tier II anticoagulation
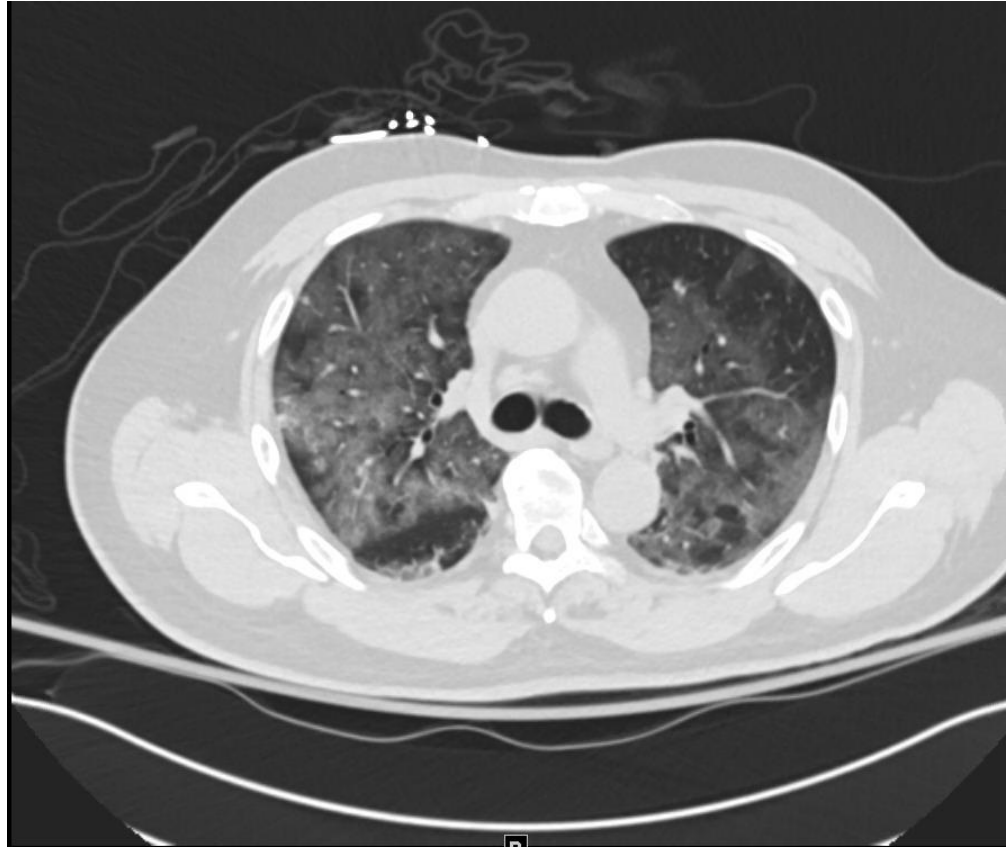- Airway clearance protocol
- Blood glucose management

Case Presentation

Case Presentation

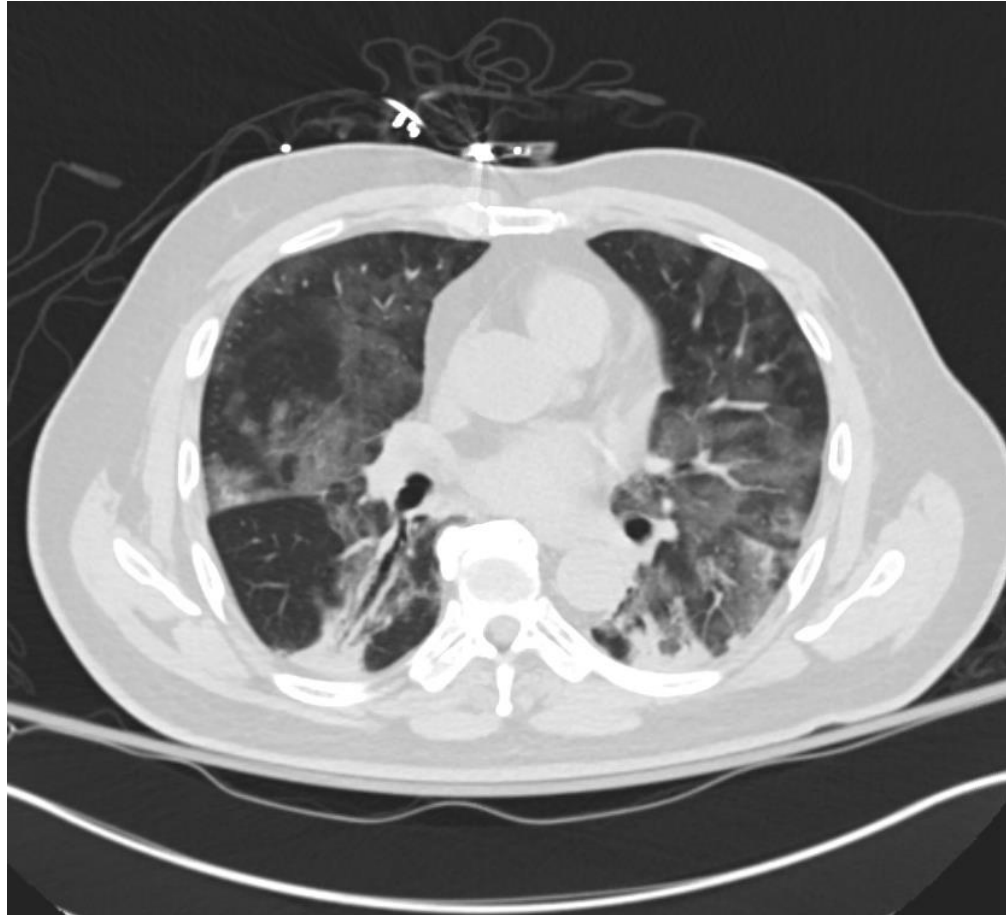# Case Presentation

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- Solu-Medrol → Prednisone taper

- PJP prophylaxis with Bactrim

- Anticoagulation with Eliquis

- Home oxygen

- Discharged home after 27 day stay

- COVID pulmonary clinic follow up

Moving Forward

- ## What are we actually facing?

Table 1

Baseline and follow-up patient characteristics represented per subgroup (with and without restriction).

Total n = 220	Restriction [a] n = 84	No restriction n = 136	p-value
At baseline			
Age (years)	55 (47; 64)	55 (42; 61)	NS
Male	55 (65%)	80 (59%)	NS
BMI (kg m^2)	28.5 (25.5; 32.1)	27.7 (24.6; 31.3)	NS
Diabetes mellitus	19 (23%)	20 (15%)	NS
Arterial hypertension	33 (39%)	42 (31%)	NS
Smoking history (>5 pack years)	15 (18%)	37 (27%)	NS
ICU admission (n)	23 (27%)	18 (13%)	0.009
Invasive mechanical ventilation (n)	8 (10%)	1 (0.7%)	0.001
Days hospitalized (n)	8 (5; 14)	6 (4; 10)	0.003
Max CRP (mg/L)	115 (55; 230)	129 (41; 207)	NS
Max d-dimer (ng/mL)	1253 (624; 2275)	824 (506; 1388)	0.01
Max ferritin (µg/L)	1171 (584; 1783)	895 (442; 1622)	NS
Max LDH (U/L)	885 (707; 1305)	761 (600; 1038)	0.001
Max NT-proBNP (ng/L)	227 (89; 716)	102 (54; 413)	NS
Max Troponin T (µg/L)	0.011 (0.008; 0.015)	0.009 (0.007; 0.012)	0.02
CT score at diagnosis (0–25)	12 (10; 16)	12 (9; 15)	NS
Ten weeks after diagnosis at follow up			
CT score (0–25)	3 (0; 6)	1 (0; 5)	NS
Symptom score	1 (0; 2)	1 (0; 2)	NS
Patients with symptom score ≥1	36 (59%)	49 (36%)	NS
FEV_1 (z-score) [b]	−0.9 (−1.5; −0.3)	0.1 (−0.5; 0.6)	<0.001
FVC (z-score) [b]	−1.3 (-1.8; −0.8)	−0.1 (−0.5; 0.4)	<0.001
FEV_1/FVC (z-score) [b]	0.8 (0.2; 1.2)	0.2 (−0.3; 0.7)	<0.001
TL_{CO} (z-score) [c]	−1.2 (−2.2; −0.6)	−0.4 (−1.1; 0.4)	<0.001
K_{CO} (z-score) [c]	0.5 (−0.5; 1.0)	−0.2 (−0.9; 0.6)	0.0005
TLC (z-score) [c]	−2.5 (−3.1; −2.0)	−0.3 (−0.8; 0.3)	<0.001
MIP (z-score) [d]	−0.2 (−1.2; 0.5)	0.0 (−0.6; 0.6)	0.02
MEP (z-score) [d]	−0.8 (−1.4; 0.0)	−0.2 (−0.9; 0.4)	0.001

Smet J, Stylemans D, Hanon S et al. Clinical status and lung function 10 weeks after severe SARS-CoV-2 infection. Respir Med. 2020 Nov 30;176:106276.

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Moving Forward

- Patient long term needs
  - Medications
  - Chronic oxygen therapy
  - Therapy
  - Clinic connection

- System long term needs
  - Bandwidth
  - Coordination
  - Enthusiasm