

March 10, 2020

Italian Group for the Evaluation of Interventions in Critical Care (GiViTI) COVID-19 Meeting

Summary

Patient characteristics

- Majority > 70 yo
- High BMI among the most common risk factors
- Majority: males
- P/F on admission < 100
- CRX interstitial pneumonia (potentially asymmetric if superinfection present)

Blood Tests

- PCT = 0
- PCR ++
- LDH ++
- Abnormal LFTs (viral +_drugs)
- CK + (especially in the younger population → higher temp and shivering)
- Very severe dysglycemia (difficult to control → frequently ketoacidosis)
- Low albumin (? pulmonary sequestration)
- Lymphopenia (low CD4)
- Normal BNP

Pharmacotherapy

- Lopinavir/ritonavir 200/50 mg 2 tablets BD
- Chloroquine 500 mg BD or hydroxychloroquine 200 mg BD
- Abx prophylaxis (local guidelines)
- Acetylcysteine 300 mg TDS (low secretions but where present very dense)
- ? Steroids → Only if signs of fibrosis (not early)
- ? Tocilizumab → Rationale based on severe inflammatory status BUT usefulness to be considered only in the light of a lymphopenic state. At present NOT for routine use and NOT early on

Critical Care Interventions

- Deep sedation
 - NMBA (window during pronation)
- Negative FB: highly absorbent lungs due to inflammation
- Protective ventilation
- High PEEP often > 15 (check for PNX, surgical emphysema)
- pH >7.3
- Usually good compliance (as opposed to typical ARDS) so driving pressures can be kept low

- Pronation
 - 18 to 24 h
 - Extremely effective → fundamental intervention
 - Up to 7 rotations required
 - Do not rely on first improvement and continue until response to therapy observed (see weaning)
 - Consider the creation of a pronation team
 - Tracheostomy within 7 days → allows earlier and safer weaning (high risk of relapse)
- ? RRT → to be reserved for patients with the prospect of a better outcome because of:
 - Nursing workload
 - Complicates pronation
 - (Problem with disposal of infected bags)
- NO → not good results so far but may be helpful as a bridge in the sickest
- ECMO → rarely needed as patients are very responsive to appropriate ventilation strategies. Indication:
 - Unresponsive
 - Extreme hypoxia

Monitoring

- CXR on admission to establish baseline. Can be repeated but does not correlate with the clinical picture
- CT chest not indicated > high risk transfer (including infectious risk)
- US chest > highly indicated for daily assessment
 - Pattern 1: widespread B lines > PEEP responder
 - Pattern 2: anteriorly clear, posteriorly consolidated > pronation responder
 - Useful to assess high PEEP complications and recruitment
- TTE: watch out for dyskinesia (? myocarditis)

Weaning

- Indication:
 - No fever
 - Low inflammatory markers (PCR, LDH)
 - Euvolaemia
 - PEEP < 12
 - P/F > 150
 - FiO₂ < 50

Do not rely on early signs of improvement as patients tend to have early relapse

NON FATEVI TROVARE IMPREPARATI!