ECHO: COVID-19 Clinical Care Rounds
Critical Care Neurology Challenges

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Preprints are preliminary reports of work that have not been certified by peer review. They should not be relied on to guide clinical practice or health-related behavior and should not be reported in news media as established information.
Neurologic Manifestations in COVID-19: Descriptive Review of the Literature

- To report the type and relative frequency of neurologic manifestations in COVID-19.
- To evaluate supporting evidence for a causal association with COVID-19.
- Pubmed, Google Scholar, according to pre-defined search terms, two independent reviewers (C.B., A.L.B.)
Inflammation/Infection
Hypoxia
Thrombosis
Site of Neurologic Injury
Distinct Patterns or No Patterns
Etiology/Mechanism
Neurologic Manifestation
Clinical Phenotype

ACE2 in brain
BBB breakdown

Neuro-trophic Of Neuro-invasive

Unknown

Etiology/Mechanism

Hypoxia

Inflammation/Infection

Thrombosis

Neurologic Exam
NeuroImaging
Neuro-electrophysiology
Blood/CSF/Tissue Based Biomarker

All with limitations
Tackling the Dilemma
Global Consortium Study of Neurological Dysfunction in COVID 19 (GCS NeuroCOVID study)

Tier 3
translational look into mechanism

Tier 2
advanced clinical phenotypes + diagnostics

Tier 1
basic clinical phenotypes & Prevalence

Led by: Sherry Chou, MD and Molly McNett, RN PhD

https://www.neurocriticalcare.org/research/covid-19-research-opportunities
Managing the dilemma (while we wait for better studies)?

Follow Evidence Based Medicine/Best Practices

After the usual COVID-19 precautions,

**Stroke:**
- AHA Guidelines for the Early Management With Acute Ischemic Stroke
- AHA Guidelines for Spontaneous ICH
- CPR and ACLS Guidelines

**Guillain Barré/AIDP:**
- American Academy of Neurology Guidelines

**Coma and Disorders of Consciousness**
- American Congress of Rehab Med
- American Academy of Neurology
- American Heart Association

**Status Epilepticus**
Dx and ICU Management SZ and Status Epilepticus
- Neurocritical Care Society Guidelines

**Surviving Sepsis – COVID-19 Campaign**
Stay Safe, Keep Healthy and Strive to be Sane!

NCCU-MICU Physicians and Nurses @Zayed 3 NCCU on our "opening day"
The Corona Twirl

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