

Summary of CCA-ACC Webinar of COVID-19 Experience in China

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D-dimer - Elevated levels highly predictive of poor prognosis. May reflect IL-6 inflammation, DIC, or endothelial damage. Some advocate for starting anticoagulation if there are no contraindications, but nobody knows; trials urgently needed.

Lopinavir/Ritonavir - may have some benefit, results to be published online 3/19/20. These drugs interact with statins and can increase chances of liver injury and muscle breakdown/rhabdomyolysis.

Fulminant myocarditis - has been seen in severe cases, troponins > 1000; some cases of recovery with treatment with steroids/IgG.

ACE-inhibitors/ARBs - controversial. COVID-19 entry into cells is through ACE-2 receptors. Anti-RAAS meds may help reduce lung inflammation. But angiotensin II inhibition also causes upregulation of ACE-2 in mouse models, leading to concern for cardiac damage. AHA, ESC, HFSA, AHA consensus as of 3/18/20 is to continue ACE-inhibitors in patients already on them for existing indications (CHF, HTN) and not discontinue unless there's a patient-specific contraindication (e.g. hypotension). More here: <https://www.acc.org/latest-in-cardiology/articles/2020/03/17/08/59/hfsa-acc-aha-statement-addresses-concerns-re-using-raas-antagonists-in-covid-19>

Steroids - Very poor response despite clear role of inflammation in lung injury.

STEMI Management - Fibrinolysis in China was considered as a potential first-line treatment over PCI in stable STEMI patients suspected/active COVID-19 with no contraindications and <12 hour presentation; marginal benefit of PCI needs to be weighed against risk of staff/lab/bystander exposure. PCI should be done in a designated negative-pressure isolation cath lab if done acutely, or selectively done after recovery from pneumonia; terminal clean will be needed if not negative-pressure, which can delay further cases. New ACC/SCAI statement 2020-03-16/JACC Pre-proof: http://www.onlinejacc.org/content/early/2020/03/16/j.jacc.2020.03.021?_ga=2.47643943.1818167888.1584497582-1280589549.1584497582

Flow chart of diagnosis and treatment for STEMI patients

