1. No.
   2022G019

2. Title
   Relationship between Subclinical/Microscopic Interstitial Pneumonia and Clinical Manifestation of COVID-19

3. Period
   2022-2024

4. Summary
   We predicted that the background of COVID-19 pneumonia is associated with the acute exacerbation of potential UIP because both severe cases of COVID-19 pneumonia and acute exacerbations of interstital pneumonia cause diffuse alveolar damage (DAD), histologically. We quantified the extent of histological UIP pattern in the lung base in COVID-19 autopsy cases without clinically ILD, and defined subclinical/histological ILD (s/hILD) as cases with UIP involved multiple pulmonary lobules definitely. s/hILD was significantly more common in COVID-19 autopsy cases, and all cases with s/hILD could be recognizable on chest CT. We reviewed chest CT images of 260 COVID-19 infected cases and compared the association between cases with potential ILD (subclinical/radiological IDL, s/rILD) and COVID-19 severity. Cases with s/rILD had more severe respiratory symptoms, supporting the hypothesis that subclinical ILD is an exacerbating factor for COVID-19 pneumonia, and suggesting that s/rILD is diagnostically useful as a risk indicator for severe COVID- 19 infection. Also, COVID-19 cases with s/rILD before or at the time of the infection were more often progress to ILD than cases without s/rILD. It was suggested that COVID-19 infection may be a trigger for progression to ILDs, and those may comprise some fraction of “Long COVID-19 with respiratory symptoms”.