

#ECR2020: COVID-19 Lessons and Questions



During one of the plenary lectures, "COVID-19: Lessons and Questions from a Pandemic" at the #ECR2020 Virtual Congress, Dr. Marie-Pierre Revel, Professor of Radiology and Head of Cardiothoracic imaging at Hôpital Cochin in Paris said that COVID-19 was the greatest health threat that humanity has had to face since the Spanish flu.

COVID-19 has affected all aspects of our lives and has forced us to isolate ourselves from each other and limit social contact as well as economic activity. Dr. Revel highlighted how the pandemic is causing tragedy and sadness all around with people dying without their family by their side, and doctors put in a situation where they are forced to make difficult choices. She also pointed out that while people around the globe continue to battle the challenge of containing the spread of infection and practice social distancing, there is another aspect of the pandemic that is yet to come, and that is the economic consequences of the lockdown.

Dr. Revel talked about some of the lessons that we've learned since the onset of this pandemic. SARS-CoV-2 has a strong affinity for angiotensin-converting enzyme 2, which is expressed on the surface of airways, alveolar cells, endothelial cells, kidney, intestine, brain and testes. In severe cases of COVID-19, there is a loss of the ACE2 function, which results in acute lung injury.

The COVID-19 virus is transmitted through respiratory droplets. Generally speaking, it takes around five days from the day of exposure for the symptoms to appear. The primary risk factors include old age, male gender and pre-existing conditions such as cardiovascular disease diabetes, hypertension, obesity etc. A strong link between cardiovascular disease and COVID-19 has already been established, and fatality rates are much higher in COVID-19 patients with comorbidities (10.5% fatality rate) and those with cardiovascular disease (7.3%). In addition, there is a risk of cytokine release syndrome and pulmonary embolism in patients admitted to the ICU with elevated D-dimer values.

Dr. Revel emphasized the importance of personal protective equipment (PPE) and physical distancing, as these can be critical to curbing the transmission of COVID-19. Also, since COVID-19 is a new disease, it is important for clinicians around the globe to share their experiences with each other as well as provide important data that can help identify trends, patient characteristics and effective treatment strategies in COVID-19 patients. However, Dr. Revel pointed out that there is still a lot that needs to be learned about COVID-19, especially its long-term consequences. We also need to be prepared for a second wave if it occurs, she cautions.

Thoracic CT is one of the primary modalities that is used to confirm the SARS-CoV-2 infection. Dr. Revel spoke about the SARS-CoV-2 Thoracic Imaging project (STOIC) that will create a database of 10,000 scans from COVID-19 patients, and that may help answer some of the questions that clinicians have about this disease.

Source: [ECR2020 Virtual Session](#)

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