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COVID-19 in Adults and Children: The Clock is Ticking

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Short Communication

Covid-19 the world is shocked. Globally, 896450 confirmed cases and 45525 deaths (WHO, situation report 73, 2 April 2020) reveal that a viral agent is spreading in an exponential way all around the world with to date unknown killing potential. What we know, the virus came from Wuhan, China, with a rapid spreading the world never had seen before. Where he came from, from a 'fish market' in the heard of Wuhan, from a bat, from a laboratory, nobody can say exactly and with great security. COVID-19 in children is a complete other scenario as in adults. Severe cases are very rare. The explanation for this entity is not clearly found. A situation of immature Angiotensin-2-receptors in children could be the explanation for this. Moreover, in children, more AT2-ACE2-receptors were found compared to adults, suggesting an important role in pathogenesis. We know, that in adults COVID-19 uses AT1-ACE2 receptors in the lungs, clearer in Type II Pneumocytes, to get in touch with human being. So, there is a clear difference in pathogenesis and clinical course of children with COVID-19 and adults with COVID-19. Researchers are "on fire" in finding a therapeutic effective agent to treat the novel SARS-CoV-2 virus. They focus on drug theories inhibiting the virus itself by alpha ketamine inhibitors of the main protease Mpro (3Clpro), a work which was yet published in Science in 2020 [1], by binding to angiotensin-2-receptor with sartane like losartan or valsartan [2-4], or drugs like Camostat (protease-inhibitor) to inactivate the serine protease TMPRSS2, which is necessary in docking to the Angiotensin-2 receptor [5-8]. And in finding a more phased approved vaccination against COVID-19 corona disease, a long way is to go. There is extensive research in different countries to produce a vaccination against COVID-19 in a hurry. In all scenarios, clinical trials and tests are lacking,

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nor off label studies performed to date with good results in humans. The world has no time. Intensive care units are overfilled with severe cases of COVID-19 patients with a need for ventilators. What we know, COVID-19 dock at ACE2-receptors in the mouth and tongue [9], suggesting an important necessity to wear mouth and face masks. ACE2 receptors are found in many different organs, but relating to the pathogenesis of COVID-19 the ACE2 receptors of the mouth, tongue and the lungs play a major role [9]. Off-label trials in infected COVID-19 patients must follow now. We need an effective answer for COVID-19. As soon as possible. The world has no time anymore.

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