1) Experimental drugs

a) In the patients that face death doctors have found high levels of IL- 6. This indicates that these patients have generated a crazy immune response which, together with the accumulation of liquids in the lungs, is the ultimate case of death as per Acute Distress Respiratory Syndrome (ADRS) or Severe Acute Respiratory Syndrome (SARS) (Channappanavar and Perlman 2017). Recently Italian doctors (also based on chinese literature) have found that the the Tocilizumab (acterma, by Roche), a drug commonly used in the rheumatoid artitis, which is an inhibitor of interleukin-6, is very effective in the cure of this patients. Roche in collaboration with the FDA will start a phase III trial early April, enrolling 330 patients globally (Biopharma-reporter.com).

b) The INF-Beta is also effective as it inhibits Corona virus replication (DeDiego et al. 2014).

c) Avigan (Flavipiravir, from Toyama chemical Fujifilm), an antiviral drug against viral replication (specifically an inhibitor of viral polymerase), also might bring hopes against Corona virus infection. **A non peer-reviewed study** showed its effectiveness compared to other antivirals such as lopinavir and ritonavir. The drug was tested on a sample of 80 patients (35 experimental sample, 45 control group) and increased the speed of recovery (measured as viral clearance from the patient) of about 4 days, compared to the control samples treated with the other anti-virals. Also lungs body scan seem to look better in about 91% of the patients analysed (Cai et al. 2020).
Cons: selection of the patients (with no categorization such as age, sex, clinical conditions… due to an emergency situation); size of the patient's sample (too small to have a powerful statistics).

d) Remdesivir (nucleotide analog, antiviral drug, Gilead). Remdesivir gave good results in the treatment of Covid-19 similar viral pathogens, such as SARS and MERS, in animal models. Upon FDA approval Gilead enrolled about a 1000 patients from Covid-19 hit countries for two phase III clinical trials to test the efficacy of the drug in adults (Gilead.com).

2) Italy shows the higher number of deaths due to Corona virus in the all world: 6077 (average age 80 yrs old), with 63927 infected people (as per 23rd of March 2020).With the respect of this numbers, the solely region of Lombardy counts 28761 infected and 3776 deaths. It is clear that there is something in this region that made the virus particularly lethal (It doesn't look that here the virus belongs to another strain). There are several hypothesis about this:

a) Age. Lombardy region concentrates a considerably high number of old people in Italy and it is also the most dynamic region from an economical point of view, with many commercial exchanges especially with China, which could have favoured the spread of infection.

b) Statistics. In the Italian statistics there has not been a distinction between dead patients that were having other pathologies and the Corona virus infection basically worsen their clinical picture and patients that have died solely due to the Corona virus infection. This better analysis (that might have been already done in China, were the average age of dead patients was 44 yrs old), could provide a better picture of the Corona virus lethal virulence.

c) Saturation of the health care system. Corona virus tests are execute just for people that are suspected to have been in contact with someone already infected or have been present in one of the "red zones". This leaves out many other people which might be asymptomatic or sick with no apparent connection with Corona virus.

d) Pollution. Lombardy cumulates the higher amount of polluted substances since the postwar (differently from China, which recorded a very high cumulation in a shorter time). Pollution might have generated a great environment for the diffusion of the virus.

3) New diagnostic test. Today the test to detect presence of Corona virus is based on the presence of its genetic material present in the saliva. The sensitivity of the test is not yet optimized, which leads to the development of new tests based on the presence of antibodies in the blood. A recently developed test allows to detect the presence of IgM 5 days after the appearance of the symptoms in 98.6% of the patients analysed, a considerably higher value compared to the results obtained with the current genetic test. This antibody test is very important to understand the picture of this infection through the future analysis of IgG (produced about two weeks after the infection), which will give the real size of the infected people (Guo et al. 2020).

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