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One health: economic and social analysis of Covid-19 worldwide

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In veterinary medicine, there is an analogy between epidemiological characteristics of emerging and re-emerging animal viral diseases (ex: avian infectious laryngotracheitis) and the Covid-19. These characteristics are represented by occurring and re-occurring of these diseases, cyclical emerging at intervals around 6 to 7 years and cross-border transmission (pandemic) by all mode of transmission (Agnew-Crumpton *et al.*, 2016). In addition, these pathologies were manifested by their spontaneous disappearance after an evolution of a few months probably due to the progressive loss of their virulence and to a regressive viral pressure. The evolution of these pathologies with moderate mortality rates depends on the health barriers put in place around the disease outbreaks. The most serious cases of these emerging diseases are found in regions of high density of flocks and inefficient biosecurity (Hidalgo, 2003).

From December, the Covid-19 affected China then South Korea where the aggressiveness of the emerging virus have increased at the start of the disease then gradually decreased during the 3rd month in relation with the potential of virus contamination but also to the preventive measures instituted. We observed a proportional number of cases and deaths on a short course of the disease in both countries with the difference that China applied total confinement and South Korea has relied on more flexible but strict health barriers namely traffic restrictions, distancing measures and the wearing of medical bibs. The common factor in the evolution of the disease for these two countries is the climate, meaning that the disease occurred during the period from January to the end of March when the temperatures were low and not very variable.

The 2nd category of Covid-19 is represented by countries affected from March such as those in Europe, Oceania, America, Asian countries, the Middle East and Africa. These countries have recorded a more or less number of cases and deaths (JHU, 2020) which are being closely linked to environmental and economic factors like strong polluting economies where the movement of people and goods is intense but also to the density of populations and the non-respect of biosecurity.

In the majority of these countries, we observed an upsurge of Covid-19 after a relative lull between the end of May and the first half of June. The trigger would undoubtedly be climatic resulting in varying and irregular temperatures and the opening of borders. It should be remembered that the aggravating factors in the appearance of any respiratory disorder are represented by sudden climatic variations which lead to a state of paroxysm of the virus in an external environment, the reactivation of the virus in asymptomatic carriers and a release in biosecurity. This is why this period of upsurge is not considered a second wave but only a transitional stage. Other countries especially in Africa that the OMS and some western countries (WHO, 2020) predestined a health drama had unregistered a reduced number of cases of Covid-19. This situation is due to a decrease of the virus pathogenicity and viral pressure favored by a limited circulation of people and goods and a reduced density of populations.

In viral diseases, specific treatments do not exist and inter-media struggle to praise such or such treatment have become caricatured. All scientists know that respiratory disorders of viral origin are usually treated with drug support for respiratory and circulatory functions and the administration of an antibiotic depending on the underlying bacterial flora. In addition, each country should institute its own treatment protocol according to the epidemiological and pathological data recorded on the spot.

In emerging and re-emerging diseases, it is very improbable to find a vaccine given to the mutation of the virus in time and space and the risk that in this type of pathology vaccines can cause the disease (Neff *et al.*, 2008) by virus mutation. Currently, we observe a decreasing curve of contaminations and mortality in the world and the disease will gradually disappear as it appeared spontaneously. Unfortunately, since the start of vaccinations, virus mutations emerged what complicated the course of the disease.

Finally, to better understand and have better control over these emerging diseases, research should focus on prophylactic biotechnological mechanisms during the latency phase of these diseases when viruses prepared their

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mutation but also should be geostrategic to mitigate the aggressiveness of the virus and viral pressure in external environment. Moreover, the probable re-emergence of a new coronavirus within 8 to 10 years is closely linked to the world economy which must be rethought so that it is egalitarian, more united, an economy at the service of man and not the reverse, an economy that reconciles global interest. Without economic compromises and the current geostrategic reconsideration, developed countries would go to confront of their own economic strength, which appears to be a factor contributing to the high incidence of these diseases.

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