

Further news on coronavirus COVID-19 from Italy

Giulio Tarro, MD, PhD

President of the T.&L. de Beaumont Bonelli Foundation for Cancer Research, Naples, Italy

Chairman of the Virus Sphere World Academy of Biomedical Technologies (WABT) UNESCO, Paris

***Corresponding author:** Giulio Tarro President of the T&L de Beaumont Bonelli Foundation for Cancer Research, Italy, tel:+390815463222; email: giuliotarro@gmail.com

Abstract

Northern Italy, especially Lombardia and Veneto, has been affected by the COVID-19 coronavirus epidemic for weeks. Trying to isolate the carriers of the disease in connection with China is not an effective strategy to contain the disease, since the virus is transmitted like the flu virus and we can expect to have patients who have had no contact with possible carriers.

According to Coronavirus genetic map, there are 3 isolated viruses in Italy. After that of Spallanzani (Rome) Covid 1 (Chinese), that of S. Raffaele Covid 2 (mutation of Chinese already known from the references) called Milanese, here is that of Sacco Hospital which is only a relative of the first two. It seems to be the same as that isolated in Finland, Germany, South America and it is hypothesized to have arrived in Europe long before the Chinese epidemic (November 2019 – March 2020).

In Italy, however, the number of swabs and the procedures for carrying them out is essentially left to the arbitration of the Regions; a chaos that prevents any reference model from being determined. With this situation, it is not clear why among the various strategies that could have been adopted, after the home isolation of the population not engaged in certain work activities, there is even a quarantine for all people. Measure that it is not clear how long it can last. The real number of people infected in Italy is at least 4 or five times higher than that declared by the recovered patients.

Lombardia is the region in the first place for using tampons; this is the reason combined with the casual praxis to present as "coronavirus deaths" patients who, on the other hand, could have deaths associated with coronavirus (ie suffering from previous pathologies that caused death) that could explain the "mortality peak for COVID19" of Lombardia. It would be appropriate before identifying the primary cause of death in COVID19, carrying out the necessary pathological investigations and, above all, defining a standard to be applied throughout the national territory.

Keywords: COVID-19, SARS, MERS, CORONAVIRUS, BAT

Introduction

Until less than 20 years ago, coronaviruses represented a viral family that during the winter period caused 10 to 30% of colds, therefore it was not worth worrying about it. In 2002 the situation changed with the SARS (Severe Acute Respiratory Sindrom) which in China affected 8 thousand individuals and caused about 10% of mortality with a virus that infected dogs and cats from the bat and then hit humans. After the leopard spots of the MERS (Middle East Respiratory Sindrom) in 2012 in South Arabia and as an epidemic in 2015 in South Korea, camel coronavirus (1), at the end of 2019 with a particular epicenter at the Huanan city market of the Wuhan metropolis, Hubei's province, a new coronavirus appears (2), then appealed COVID-19 (Coronavirus Disease 2019), which after passing into exotic animals pangolin, porcupine infects humans and adapts with greater virulence so as to establish subsequently interhuman infection and the spread of a mysterious pneumonia before its isolation and genetic study, showing variability from 2 to 12% compared to the original bat coronavirus (3).

Epidemiology

While the history of epidemics repeats itself over the centuries, the basic rules have not changed by isolating the patient and carrying out the quarantine, thus from the Athens typhoid fever of 430 b.c. to the plague of Manzonian memory, 1600 a.d. to the Spanish flu of 1918, that claimed more victims than the just ended First World War. In China, the SARS lesson has made it possible to mobilize the population of Wuhan with a delay of almost a month compared to the first cases and the prompt communication to the WHO (World Health Organization) which in itself caught the epidemic by declaring it only a month after the first communication as PHEIC that is Public Health Emergency of International Concern. The photo of President Xi with the face mask and the public declaration of danger showed a delay that costed human lives, despite that early diagnosis by the ophthalmologist Wen Lee who died from this epidemic disease (4).

Viral genome

The virus appeared controllable and non-aggressive in the infection, providing after 10 days from the communication to the WHO, the viral genome to the American CDC (Center for Disease Control and Prevention) which immediately confirmed the fingerprints of the new coronavirus for the preparation of a diagnostic kit to be used globally for all healthcare institutions and to distinguish this infection from ongoing seasonal flu. Obviously this viral nucleic acid will allow us to know the proteins produced by viral RNA for the synthesis of specific antigens and antiviral drugs (3). The development of the vaccine will take time and although stem cell methodologies can be used, 12-18 years will be needed for safe treatment.

Italian Epidemic

Northern Italy, especially Lombardia and Veneto, has been affected by the COVID-19 coronavirus epidemic for weeks. Trying to isolate the carriers of the disease in connection with China is not an effective strategy to contain the disease, since the virus is transmitted like the flu virus and we can expect to have patients who have had no contact with possible carriers. Many cases are not diagnosed because people have not yet developed symptoms and do not know they have been exposed to the virus. Therefore, bearing in mind what is really happening, the blocking of flights with China was useless, however it was bypassed by the indirect connection of flights through other countries. It would have been better to implement the federal quarantine declared by the USA on February 2 with two weeks of isolation which corresponds to the longest time between exposure and the onset of symptoms and affects all subjects who have had contacts both outside and inside China.

The risk represented by COVID-19 is substantially the same as that of the many flu epidemics that occur every year without causing a sensation.

Let's take an example. Every year about ten thousand people die in Italy (mostly elderly or suffering from some previous pathology) from influenza virus. This is not news, especially because these deaths are scattered throughout the national territory. Now imagine that all people at risk are hospitalized in a couple of places, perhaps surrounded by journalists looking for some scoop. Rest assured that the resulting "flu epidemic that can cause death" will push countless people (about six million Italians are affected by flu syndrome each year) to demand analysis and an assistance impossible to obtain.

First case in Italy

A purpose of the "patient zero" research of Coronavirus infection in the area of Lodi and therefore of the question of the cause of the "outbreak" that developed precisely in that area I would like to submit to your attention a hypothesis that could be "strange" but possible since currently "experts" have not understood much of the causes of the outbreak.

The hypothesis has been made that probably the 'host' animal that allowed the passage of the virus from animal to man was the bat, or the civet cat (5, 6).

The latter animal (mammal) is very useful for the preparation of one of the finest coffees in the world (in Indonesia and Africa) and is used in the cosmetics industry where by extracting the appropriate essences from the civet's excrements produce very valuable perfumes mostly for men.

Based on this information I did a search on the Italian industries that make these perfumes and I verified that a very important cosmetics industry is near Lodi.

Italian COVID-19

According to Coronavirus genetic map, there are 3 isolated viruses in Italy. After that of Spallanzani (Rome) Covid 1 (Chinese), that of S. Raffaele Covid 2 (mutation of Chinese already known from the reference 3) called Milanese, here is that of Sacco Hospital which is only a relative of the first two. It seems to be the same as that isolated in Finland, Germany, South America and it is hypothesized to have arrived in Europe long before the Chinese epidemic (November 2019 – March 2020).

Dwelling on some mutations in 5 nucleotides present in the "Italian virus", it was suggested that this did not descend at all from the notorious Wuhan virus (7), now, the official confirmation by the Italian Institute of Health: no case of the coronavirus epidemic that is spreading in Italy has to do directly with China.

A discovery that would also explain the really anomalous surge of cases (even serious) of flu registered in Italy in the months of November-December (and not already January-February as normally happens) and which will remake the draconian containment measures presented on the first of February. Political measures that are throwing Italy into panic with disastrous economic consequences.

These measures, in fact, arise from the following by the Italian authorities of the initiatives implemented by the Beijing government, first of all the health cordon that isolated 50 million Chinese in Hubei-Wuhan, the main manufacturing district where Western companies draw.

Unfortunately, despite the very important discovery of the Italian Institute of Health, the media instead of encouraging people, overshadowing the hypothesis that the many positive buffers could be a legacy of an epidemic now passed, continues to terrify with this story of the "Chinese virus" without

explaining why only one case of Coronavirus has been recorded in Prato, with a community of 23,000 Chinese.

The decision by the British authorities to "let the epidemic out" is causing a sensation by placing almost no restriction on crowding (in the hope that this will lead to rapid immunization in the infected) and, at the same time, placing high-risk people in quarantine, such as example, the elderly. On the strategies that oversee (or should oversee) the tackling of epidemic emergencies many scientific papers on Coronavirus are bening published.

Epidemic strategy

In the meantime, what are the possible strategies for dealing with an epidemic?

In epidemics such as influenza, generally, there is a tendency to reduce the size of the epidemic peak by spreading it in the longest period possible; this is to avoid the collapse of the health system following the high number of hospitalizations (Figure).

It goes without saying that each of these strategies must be chosen by analyzing precise data; among these, the reliable estimate of the non-infected, of the infected and of

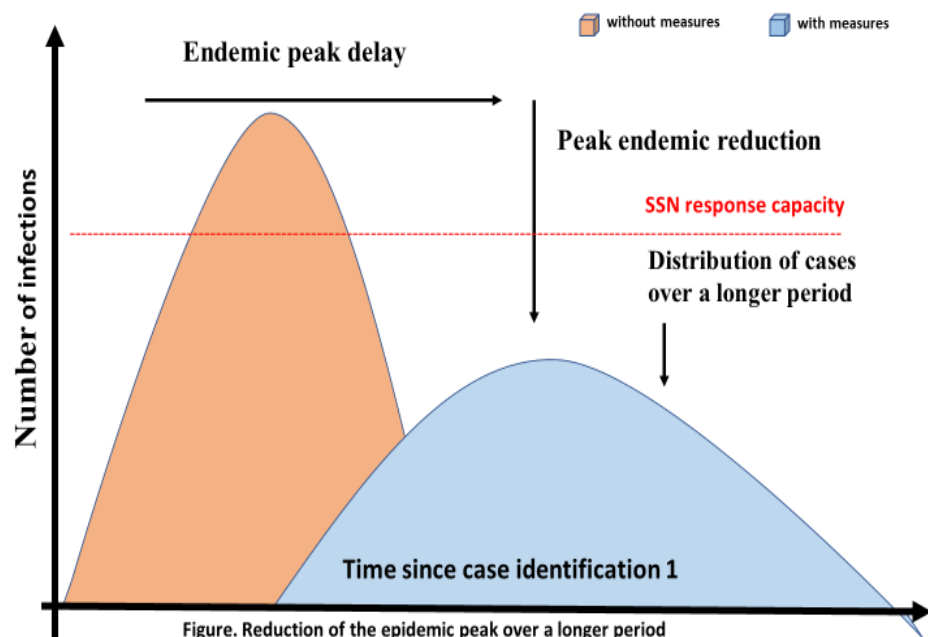


Figure. Reduction of the epidemic peak over a longer period

the people they could infect is fundamental (Table).

Table. Evidence of effectiveness of social separation measures to reduce the spread and impact of influenza epidemics

Intervention	N. of studies	Study drawings	Main results
Home isolation	15	Observational studies Simulation studies	Moderate effectiveness in reducing the spread and impact of the epidemic
Quarantine of exposed subjects	16	Experimental studies Observational studies Simulation studies	Moderate effectiveness in reducing the spread and impact of the epidemic
Contact tracking	4	Simulation studies	In combination with other measures (e.g. isolation and quarantine) it can reduce the spread and impact of the epidemic Adding contact tracing to other measures can bring marginal benefits against the resources needed
Measures related to schools Planned holidays	28	Observational studies	The spread of the epidemic decreases during the planned holidays, but could increase after the reopening of the schools
Reactive closure	16	Observational studies	Variable efficacy in reducing the spread of the epidemic
Preventive closure	13	Observational studies	Moderate efficacy in reducing the spread of the epidemic
Workplace measures	18	Experimental studies Observational studies Simulation studies	Variable efficacy in reducing the spread and impact of the epidemic which increases in combination with other interventions
Closing of work environments	10	Simulation studies	Moderate efficacy in reducing the spread of the epidemic
Measures to avoid gatherings	3	Observational studies	Moderate efficacy in reducing the spread of the epidemic, only if the application is timely and prolonged

In this regard, for example, in South Korea, they are proceeding not only to swab people who do not show particular clinical pictures but, even, by tracking their movement through their mobile phone, thus determining (once knowing the their possible positivity) the danger represented by them.

In Italy, however, the number of swabs and the procedures for carrying them out is essentially left to the arbitration of the Regions; a chaos that prevents any reference model from being determined. With this situation, it is not clear why among the various strategies that could have been adopted, after the home isolation of the population not engaged in certain work activities, there is even a quarantine for all people. Measure that it is not clear how long it can last. The real number of people infected in Italy is at least 4 or five times higher than that declared by the recovered patients.

That number is an estimate that is based on the interpolation of the data referring to those infected in respiratory viral epidemics that have occurred in Italy in recent decades. From this it can be deduced that the lethality rate of COVID 19 is considerably lower than 1%. This finding was also incorporated into a study by colleague Anthony Fauci of the US National Institute of Allergy and Infectious Diseases, based on a report focusing on 1099 laboratory-confirmed COVID-19 patients from 552 Chinese hospitals (8).

This suggests that the overall clinical consequences of COVID-19 could ultimately be similar to that of severe seasonal flu, which has a lethality rate of around 0.1%, or pandemic influenza such as that of 1957 or of 1968, rather than those of SARS or MERS, characterized respectively by a lethality of 10% and 36% and which, incredible to say, did not produce any alarmist campaign in our country.

Acknowledgments

The authors thank for their support: Foundation T&L de Beaumont Bonelli for Cancer Research Napoli – Italy, www.fondazionebonelli.org.

Conclusion

In the meantime, I remember that according to the World Health Organization, our country has halved the number of beds for acute cases and intensive care, from 575 per 100,000 inhabitants to 275 today. A scandalous cut of 51%, operated progressively from 1997 to 2015, which brings us to the bottom of the European rankings. Among other things, it should be said that, despite the images of what was happening in China were there for all to see, it would be said that - unlike other countries such as France - very little has been done in Italy to prepare for the epidemic, plus it should be noted that, following the emphasis of the threat posed by COVID 19, patients who could have been treated in other facilities were brought to the intensive care units. As regards, then, the peak of deaths recorded in Lombardia it is to be noted that this region is in first place for the making of tampons; this,

combined with the casual praxis to present, even in institutional settings, as "coronavirus deaths" patients who, on the other hand, could have deaths with coronavirus (ie suffering from previous pathologies that caused death) could explain the "mortality peak for COVID19" of Lombardia (9). For this reason, it would be appropriate before identifying the primary cause of death in COVID19, carrying out the necessary pathological investigations and, above all, defining a standard to be applied throughout the national territory (10).

The transmission of 2019-nCoV infection from an asymptomatic contact in Germany as patient zero (11) and the first case of 2019 novel coronavirus in the USA can be used as highlight of the importance of close coordination between clinicians and public health authorities for this emerging infection (12).

References

1. Tarro G. The new coronavirus from the city of Wuhan. *The Journal of Biologists*, year III, n. 1, January 2020.
2. Tarro G. The new coronavirus from the Chinese city of Wuhan. *International Journal of Recent Scientific Research*, Vol. 11, Issue, 01 (D), pp. 36901-36902, January, 2020 - DOI: <http://dx.doi.org/10.24327/ijrsr.2020.1101.5021>.
3. Wu A. et al. Genome composition and divergence of the novel coronavirus (2019-nCoV) originating in China. *Cell Host & Microbe*, doi: 10.1016 / j.chom.2020.02. 001.2020.
4. Tarro G. The spread of the new coronavirus. *Asian Journal of Science and Technology*, Vol. 09, Issue, 03, pp.xxxxxxxx, January, 2020.
5. Yi F, Kai Z, Zheng-Li S and Peng Z. Bat coronaviruses in China. *Viruses*, 11, 210; doi: 10.3390 / v11030210, 2019.
6. Cyranoski D. Mystery deepens over animal source of coronavirus. *Nature*, vol 579, pag 18-19, 5 March 2020.
7. Na Zhu et al. A novel coronavirus from patients with pneumonia in China. *The New England Journal of Medicine*, 382; 8, February 20, 2020.
8. Fauci A, Lane C and Redfield R. COVID-19 - Navigating the Uncharted. *The New England Journal of Medicine*,, March 11, 2020.
9. Chaomin Wu et al. Risk factors associated with acute respiratory distress syndrome and death in patients with coronavirus diseases 2019 penumonia in Wuhan, China. *JAMA International Medicine*. DOI: 10.1001 / jamainternmed.2020.0994, Published online March 13, 2020.
10. Sheridan C. Coronavirus and the race to distribute reliable diagnosis. *Nature*, online, 21 February 2020.
11. Rothe C. Transmission od 2019-nCoV infection from an asymptomatic contact in Germany. *The New England Jorunal of Medicine*, 382;10, pp. 970-971, 5 March 2020.
12. Holshue ML et al. First case of 2019 novel coronavirus in the United States. *The New England Jorunal of Medicine*, 382;10, pp. 929-936, 5 March 2020.

