



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Available online at
ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com/en



EDITORIAL

Antigone syndrome and other side effects of the Covid pandemic



Why Antigone?

An image – truly shocking – struck people recently on social networks (Twitter): a North American journalist released the photograph of the hand of a patient in US intensive care due to a Covid-19 infection surrounded by two medical latex gloves filled with a transparent liquid, with the following comment: “A heart-breaking sign of the times: in isolation wards where patients die alone, craving the touch of their loved ones, nurses fill globes with warm water to simulate that comfort. They call it the Hand of God” [1].

This image is dramatic: it speaks of the complete isolation of these patients, who die alone (in the sense of: far from their loved ones and their families), without moral and religious support. It also says the extreme occupation of the medical staff who do not have time, for reasons of priority of care, to hold the hands of these patients. Finally, it talks about the invaluable sensitivity, the extreme ability of the human species to trick (in a good sense) to compensate for this emotional deficiency with such artifices. But such a sadness! And such a trauma to come for the family who will live with this frustration of not having been present at this critical moment, and will not have been able to accompany the dying on the road to death, then, through rituals, upon entering in the other world. Distance, absence, the inability to begin the work of mourning, the trauma of imperfect (or botched, if not absent) funeral rituals . . . It is a veritable generation of neuroses that is preparing for the survivors of this pandemic! The funeral ceremony provides the benefit of taking into account, sharing of feelings, and the communion of grief. Its absence or incompleteness is fatally harmful to the individual and the group, in a more or less short term.

This is Antigone syndrome, as it is proposed to be called here: the trauma of survivors who were unable to honour their dead, who were unable to act on the reality of death. The Greek tragedian Sophocles put it this way in the 5th century BC.: “A dead person doesn’t have to be killed twice” [2]. Antigone tells us the importance of the dead for the balance and peace of the living. Antigone tells us that a people who do not honour their dead gradually sinks into madness and downfall. Antigone tells us what it costs to privilege politics over morality: despising the gods leads to isolation, to the loss of all reference points, to the dissolution of society, to oblivion . . . a second death.

A loss of humanity?

Any pandemic is a disaster in terms of health, but also political, economic and societal. Since the epidemics of plague, yellow fever, Ebola, we have learned that death does not par

always occur immediately and in a way directly linked to the infectious agent, but often in a sneaky way, at a distance, by perverse and harmful effects induced by the consequences of the spread of the virus/bacteria and the means implemented to fight against it.

In this paradigm shift, in several parts of the world, the human species must face situations that cause it to lose its societal and moral balance: in Brazil, the lack of sedative drugs forces health professionals to tube patients in full consciousness, which is additional trauma (and severe pain) [3]. In India, after having favoured the sale of vaccines to foreign countries, the nation is now totally overwhelmed by the new wave of the pandemic, and cremation pyres improvised in car parks and public places are now burning 24 hours a day. Recently, the twenty-seven countries of the European Union are threatening the United Kingdom (i.e. main producer of the Astra-Zeneca and Pfizer vaccine) with a “vaccine war” by validating the strengthening of the mechanism for controlling exports outside the Schengen area. All over the world, in hospitals and clinics, many surgical interventions (sometimes vital), care (sometimes essential such as chemotherapy or radiotherapy), or even diagnostic examinations (screenings by colonoscopy or mammography, for example) have been deprogrammed without having yet been carried out, constituting a loss of opportunity for patients (mainly in oncological and transplant contexts): we must expect a – delayed – rebound in mortality linked not to the Covid itself, but to the delay in diagnosis and/or taking in charge of these chronic diseases ... with a decrease to be observed in life expectancy globally on a global scale.

A loss of credibility?

The onset of this pandemic was the perfect opportunity for tens of thousands of healthcare professionals to write and then submit articles to biomedical journals, resulting in a monstrous inflation of scientific ... or rather *pseudo-scientific* publications. Some journals have published (and some continue to this day) to only publish articles dedicated to Covid-19, sometimes with significant bias in the selection of these publications. From the start, 30 (serious) publishers decided to offer free access to their articles uploaded to the Pubmed and PubmedCentral sites, which was commendable [4]. But the fact that the Pubmed platform (National Library of Medicine) decided to index almost systematically articles related to the Covid epidemic (initially to facilitate research and therapeutic initiatives) set up a second bias, by opening the door to an indexing of poor quality articles published in predatory journals: an a posteriori re-examination of these indexes will be necessary (perhaps through platforms comparable to Retraction Watch? If not through a specially dedicated section of the WHO?), so as not to “validate” poor quality publications through this indexing and maintain mediocrity that distorts the efficiency of research and biomedical science.

A loss of hope?

In France, the figure of 100,000 deaths was largely exceeded during the month of April 2021, making this pandemic one of

the most important of the last 100 years (25,000 and 30,000 deaths respectively from the Hong-Kong flu in 1968–1970 and Asian flu in 1956–1958, 200,000 deaths from the Spanish flu in 1918–1920).

Despite everything, by habit, by challenge, by (inappropriate) survival reflex, by trauma (anxio-depressive effect of confinement) or by simple weariness (“pandemic fatigue”), plus the “macabre toll” (this number of daily deaths delivered every evening on television by the health authorities) increases, the more behaviour slackens: we no longer count the masks badly or not worn in public spaces, illegal meetings, risk-taking ... and even calls for civic disobedience or to civil or military insurrection!

While the situation seems stabilized in some states (Israel could represent a kind of a leader, in terms of management and neutralization of the pandemic), but it could be destabilized by the appearance of new variants, what will we bequeath to the next generation? Weakened and traumatized survivors, infected people suffering from the long Covid syndrome, victims of the coming economic and social crisis, and caregivers marked by these successive waves (experienced as so many tragic ordeals).

In this management of a dramatic present, and of a future for which it is unfortunately reasonable to be pessimistic, ethics applied to public health policies has fully its place.

Disclosure of interest

The author declares that he has no competing interest.

References

- [1] @marcgoldstein_ 11:16 PM. 9 air. 2021. Twitter Web App (https://twitter.com/marcgoldstein_/status/1380630630816477184).
- [2] Sophocles. *Antigone* Edited and translated by Andrew Lyon Brown. Liverpool: Liverpool University Press; 1987.
- [3] Reuters. Brazil's hospitals running out of sedatives as Covid-19 rages. 15/4/2021, 10:46 CEST (<https://www.reuters.com/world/americas/brazils-covid-19-response-cost-thousands-lives-says-humanitarian-group-2021-04-15/>).
- [4] Corvol P. L'envolée des publications scientifiques en temps de Covid-19. Séparer le bon grain de l'ivraie. *Med Sci* 2021;37:315–6.

P. Charlier^{a,b,c,*}

^a *Laboratory Anthropology, Archaeology, Biology (LAAB), Paris-Saclay University, 2, avenue de la Source de la Bièvre, 78180 Montigny-Le-Brettonneux, France*

^b *Department of Research and High Education, musée du quai Branly – Jacques Chirac, 222, rue de l'Université, 75007 Paris, France*

^c *Fondation Anthropologie, Archéologie, Biologie – Institut de France, 23, Quai de Conti, 75006 Paris, France*

* Correspondence. Laboratory Anthropology, Archaeology, Biology (LAAB), Paris-Saclay University, 2, avenue de la Source de la Bièvre, 78180 Montigny-Le-Brettonneux, France.

E-mail address: philippe.charlier@uvsq.fr
Available online 7 June 2021