

The Covid-19 pandemic in Mexico: The fundamental role of palliative care and bioethics

La pandemia de Covid-19 en México: el papel fundamental de los cuidados paliativos y de la bioética

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Abstract

The Covid-19 pandemic has tested all health systems. The crisis that it caused has affected society, the economy, and, in general, all human activities. Palliative care and bioethics play a fundamental role in the management of the new Covid-19 disease that does not yet have a known treatment. The principles of bioethics, coupled with the practice of palliative care have supported the pandemic. Patients who have recovered and those who have died as a result of Covid-19 have at some point required support and palliative measures, either in hospital units or at home. It is desirable to promote these tools: palliation and ethics of life, since not only from technology come the solutions that allow taking care of life and health, and they should not be mutually exclusive. One year after the start of the pandemic, there are still many questions

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to be answered, and much research to be done. Undoubtedly, the year 2020 will give a reason for reflection to all human beings and especially to those responsible for taking care of health.

Keywords: pandemic, Covid-19, palliative care, bioethics, support.

Introduction

The Covid-19 pandemic is the subject of much writing, academic and medical discussion, and regular media coverage. Some voices propose that there was a global reality before the emergence of the virus in Wuhan, and there will be a new reality after it, or with it, when we can live with the coronavirus without risk of disease because we have already created immunity, as has historically happened with the emergence of new pathogens.

This article intends to highlight two tools that can work very well together: palliative care and bioethics, accompanying patients and their families, and health professionals who, in order to comply with the *lex artis* of their profession, need to rely on different points of view: from therapeutics to accompaniment, always within a framework of values.

This article is divided into three parts: the pandemic, palliative care and bioethics. It presents a view from the battlefield and from the academy, which aims to highlight the importance of cultivating and increasing training, information and preparation in palliative care and bioethics for health personnel and anyone interested in medicine and ethics.

1. The Covid-19 Pandemic

In the last days of 2019, a catastrophe was brewing in Wuhan, China, and a few months later, it reverberated throughout the world,

disrupting the life of the postmodern citizen in the health, social, emotional and economic aspects.

The cause of the global crisis that weakened a man in constant empowerment, and continues to do so even a year later, comes from a pathogen, very small: 65 to 125 nm in diameter (1). This virus today is known to be SARS-CoV-2, composed of RNA. The today much studied member of the family of the coronavirus has a 96% of similarity with the Bat-CoV. The disease, SARS-CoV-2, was named Covid-19 by the World Health Organization. The life cycle of this coronavirus has involved parasitizing initially a bat and then another intermediate animal, to finally reach humans. It is considered a zoonosis (a disease that is naturally transmitted from animals to humans) (2).

One of the first pandemics in history to be reported is the «plague of Justinian» in the Eastern Roman or Byzantine Empire, and spread from 541 to 543 in Europe, Asia and Africa, claiming the lives of 25 million people. Historians assume that the cause was the bacterium *Yersinia pestis*, the same causal agent of the «black plague», which in the 14th century killed 75 million people. *Yersinia pestis* is injected into humans by a flea carried by a rat. Today *Yersinia pestis* can be medically controlled with antibiotics.

In the 20th century, in 1918 and after the First World War, the Spanish flu, caused by the *influenza virus* AH1N1, caused 100 million deaths. A virus of the same type causes again a pandemic of H1N1 influenza in 2009, where 18,000 people died.

Even in the 21st century, viral diseases are still untreated. The management of viral diseases consists of supporting the sick person, waiting for their immune system to achieve control of the disease (3).

The Covid-19 is not yet fully described; it requires time to make a study of the prognosis and possible complications in the medium and long term.

The severity of the clinical picture of Covid-19 is very variable: asymptomatic, mild disease, stable with or without respiratory im-

pact, affected and unstable but not in critical condition, critically ill. This description was made in the first months of the pandemic in Italy, and today conditions have not changed much. The severity of the condition and the possibility of putting the patient's life at risk will dictate the modality of treatment (4).

2. Palliative Care

Palliative care emerged with man; in general, the sick person is palliated in his pain and suffering by his own family and relatives. It is known that in the Middle Ages, during the Black Death epidemic, the only possible measure was to support the symptoms and accompany them.

The formal history of palliative care began at the end of the 19th century in Europe. In some population centers, located in the passage of travelers there were centers of welcome for dying patients (5).

In this sense, the beginning of the «Hospice» movement was transcendent, since it led to the recognition of the need to care for the sick who did not have a cure. *St Christopher Hospice*, led by Cicely Saunders, was founded in England in the 20th century and the model was later replicated in several countries (5).

In Mexico, palliative care was displaced during the 20th century from health institutions by technology applied to the diagnosis and treatment of diseases. Today we know that palliation and biomedical technology are not mutually exclusive; both management options are needed: cure with everything that exists, without reaching dysthanasia, and care when it is no longer possible to cure. The advance of palliative care in Mexico is important; they are not the solution for the oncological patient, as they were originally, but the alternative to improve the quality of life of terminal people, with chronic diseases and for sick patients, whose natural evolution of

the disease is the cure without the intervention of a medical treatment (6).

Mexico is among the few countries with clear legislation on palliative care. These are a health right of its inhabitants. It is a priority to strengthen training in them, to have units for the care of patients who require palliation and to favor public policies that support this important area of medicine (7).

The World Health Organization has defined palliative care as the way to improve the life of the patient and his or her family, in case of suffering a life-threatening disease, by treating the pain and symptoms, and by giving spiritual and psychological support, from the diagnosis of the disease to death and during mourning (8). The palliative care unit accompanies the patient and his or her family, and once the patient dies, it accompanies the family in their grief.

In 2020, the Lancet Commission redefined palliative care after a rigorous study, and concluded that the 2002 WHO definition became insufficient. Today's palliative care includes prevention, early identification, management of physical problems and other symptoms such as psychological and spiritual distress, and care for social needs. Intervention must be evidence-based. They provide support and help to the patient's life until natural death appears, facilitating communication and following the patient's goals. They are always applied according to the patient's needs. They are provided along with other therapeutic measures that the patient needs. They are a positive influence on the disease. They do not postpone death, but affirm life at its end. They provide support to the family during the patient's illness. They recognize the cultural values of the patient and his/her family. They are applied at home, as well as in institutions and hospitals, and at the primary, secondary or high specialty level. Professionals with basic training can provide them. Multidisciplinary teams are required.

The government that include palliative care must adopt public policies. Health insurance must include them. They require provi-

ding access to pain medications and basic technology for pain management. They must be part of basic health services, and involve vulnerable populations and children. Universities, hospitals, and health care training sites should include this subject in their curricula. The Lancet Commission study is being verified during the pandemic we are witnessing (9).

Covid 19 has put all health systems to the test, causing an international health crisis, initially because of the growing need for hospital beds, mechanical ventilators, supplies and insufficient health professionals. One year after the onset of the disease, no effective treatment has been described, despite research in this field. Palliation of the disease to alleviate suffering is the best way to help the sick and their families (10).

We know that the clinical spectrum of the disease is broad: it can be asymptomatic, with moderate symptoms, or a patient with severe pneumonia and multiple organ failure.

From the very essence of palliative and support medicine, four principles are cardinal in the palliation of people infected by SARS-Cov-2:

Principle 1. *Relief of symptoms*

The patient with Covid-19 frequently presents dyspnea, which can be managed with medication or physical measures. In the first case, the minimum dose of opioid or benzodiazepine should be used, so that it is able to avoid the feeling of central shortness of breath. In the second case, the patient will be repositioned in his or her bed so that breathing will be less difficult. The clinical picture is usually accompanied by suffering; social, emotional and spiritual needs that require attention and are difficult, since the patient must be isolated and the family cannot accompany him/her. Palliation must be directed to the patient and his or her family since, as we know, the palliative care unit is the patient and his or her family, and here a new challenge arises to alleviate the symptoms (10).

Principle 2. *Patient-centered care*

It includes the need to always take into account the patient's preferences. The conscious patient must decide whether to accept a transfer to a hospital, whether to be connected to a ventilator and, if the patient can no longer decide, this right must be subrogated to the patient's family. In the circumstances of this pandemic, a balance must be maintained between patient-centered care and the good of the community. Physicians should communicate to the patient and family that the patient's preference cannot be fulfilled because of the risk of transmission of the causative virus of the disease, because of the patient's co-morbidities, and sometimes because of the resource situation (10).

Principle 3. *Caring for the patient and family*

The disease affects the patient, his or her family and loved ones, and all require care. Communication is a fundamental aspect in the management of patients in all circumstances. The indispensable isolation of the person infected with Covid-19 greatly complicates the fulfillment of this principle. We have seen patients accompanied by electronic tablets, cell phones with video calls and, in general, any digital means that allows remote communication. However, although it is useful, it does not eliminate the anxiety of the patients and their families. Today we see that the «video farewell» is a sad reality when the patient cannot be accompanied in death, as it appears in the photograph that Francesca Cortellaro published in Milan.

The need for difficult conversations with patients and families, regarding prognosis, triage and the lack of ventilators in the hospital environment has increased. This skill is indispensable in palliative care (10).

Principle 4. *Have multidisciplinary teams*

The needs of the sick person and their families arise from the human multidimensionality, and attention to all aspects that arise is

necessary. As in no other time, health care workers have had to assume functions other than their own, and «cross-training» to adapt to hospital and home management circumstances has been characteristic of this pandemic. The specialist in palliative medicine has been surpassed and more than ever valued in his or her performance (10).

Palliative medicine and palliative care are at the forefront of community service. It is advisable to keep the sick person at home, with palliative care, and to follow them closely through telemedicine or phone calls. The doctor, in the case of a patient with comorbidities and a state of vulnerability, must decide together with the patient and the family the convenience of keeping him/her at home, limiting the risk of acquiring a hospital infection and of being isolated far from home. In the management of every sick person, it will always be convenient to know his will in advance and to ask him his preferences for when he cannot decide (11).

During the pandemic, the essence of palliative care has changed, which is based on accompaniment and closeness. The patient must be isolated; family visits do not exist; those who approach the patient use special equipment that gives a sensation of distance and unreality; in case there is another patient in the hospital room, they must be separated by at least two meters, and the healthcare personnel limit their visits (12).

In every health care unit and home where a person with Covid-19 should be assisted, the pandemic requires resolution of the symptoms presented by the ill person, in addition to constant observation, to resolve problems and complications in a timely manner and to manage their symptoms. The World Health Organization, in its *Guide to Maintaining Health Services during a Pandemic*, talks about immunization (when available), maternal care, emergency care, and chronic diseases, among others, but forgets about palliative care, which is indispensable.

The availability of opioids and the knowledge to prescribe them, telemedicine, advance service plans, training of health per-

sonnel and primary caregivers is essential, and is the daily business of palliative medicine (13).

3. Bioethics

Bioethics is an interdisciplinary discipline that was born in 1970, developed by Van Rensselaer Potter in the United States. Today, Potter's interdisciplinary faces a global health crisis for the first time: it is the greatest test that bioethics has faced since its birth, and it can be said that it has been present accompanying physicians and developing guidelines for action. Surely many global citizens with access to formal and informal information have repeatedly heard the word «bioethics».

Reich defined bioethics in 1978 as *the systematic study of human behavior in the area of the life sciences and health care, insofar as such behavior is examined in the light of human principles and values*.

The most urgent need arising from medical practice for an interdisciplinary approach, bioethics, to address the ethics of human interventions began in 1947, when Claude Beck performed the first defibrillation. With this, he achieved what man had always dreamed of: reversing death. In 1950 Bower and Bennett, developed the first mechanical positive pressure ventilator, and in 1955 the Bird Mark 7 appeared commercially, the first «artificial respirator», which caused serious and new problems of a diagnostic, prognostic and ethical nature, since cardiac death was separated from cerebral death, and on many occasions the question arose about the quality of life of the patient. The ethical crisis of those who could not offer a ventilator to their patients, invited Pope Pius XII to call «extraordinary» any measure that was beyond the reach of the physician or that had a bad prognosis (15)

The overvaluation of technology applied to disease management characterizes the contemporary world. Bioethics has balan-

ced technology applicable to health with the impact of what treatments mean for the patient, and has insisted on respect for patient autonomy.

Currently, the scope of bioethical discussion is enormous: it ranges from the creation of cyborgs to the need to apply distributive justice; from the use of robotic surgery to palliative medicine (16).

Public health is always influenced by the political decisions of the moment, which sometimes makes the indispensable dialogue between bioethical actors more complex. In the current health crisis, we have seen that Edmond Pellegrino's words are real: politics intervenes at all times in decisions about health (16).

In Mexico, the obesity epidemic detected since 1988 has brought consequently the increase of metabolic diseases in the population, in all ages, and this is undoubtedly due to the country's food policies. There is a permanent tendency towards overweight and obesity, which highlights the need to establish public policies aimed at regulating the food offered to the population. Unfortunately, obesity begins in childhood and has become normalized in Mexican society, without thinking that this is a source of childhood diabetes, high morbidity and deteriorating health (17). Mexico receives the Covid-19 in the middle of an obesity epidemic, which makes the population more susceptible to infection by having a comorbidity that makes the sick more vulnerable. During the Covid-19 pandemic, it was decided to label foods that had an excess of sodium, sugar, saturated and trans fats, sodium and caffeine. This is an example of what Pellegrino proposes as the political influence in bioethics. The problem of postponing solutions to obvious problems that affect life and health is directly a bioethical problem (16).

In general, clinical bioethics, perhaps the best-known branch of this discipline, faces dilemmas of individual clinical encounter and diseases of populations and groups. During the pandemic, it has been confronted with considering obligations to social groups, shifting the focus from individualism to meeting the needs of the entire population (18).

From a population perspective, bioethical analyses should consider the extent, direction, and distribution of resources, including issues of scarcity, and the concerns of vulnerable individuals.

The bioethical principles to be developed in situations of humanitarian problems are respect for the person, non-maleficence, charity, justice, solidarity, non-abandonment and the principle of double effect (18).

In the name of respect for the person, it is considered fundamental to attend to autonomy. Derived from the principle of autonomy we have the process of informed consent, advance directives and orders not to resuscitate (19). There is much talk of autonomy

Table 1. The relationship between the principles of bioethics and action in palliative care

Principles of Bioethics	Action in palliative care
Autonomy	Informed consent Advance directives Non-resuscitation orders
Non-maleficence	Limitation/appropriateness of therapeutic effort Avoiding distancing
Beneficence	Orthothanasia Dignified death Giving bad news
Justice	Distribution of scarce resources Triage Vulnerability
Solidarity	Accompaniment Attention to the patient's family Farewell to the sick person
Non-abandonment	Support and care for the sick respecting their preferences
Double effect	Palliative sedation

Source: Own research.

in the pandemic. For some authors, in cases of extreme crises such as in the current pandemic, the patient's decision could be omitted. For others, respecting autonomy is equivalent to respecting the dignity of the person, as long as the request is proportionate, within the law, and the remedy exists. It is essential to have the patient's consent for treatment and to know his or her preferences in advance. It is important to talk with the patient about the end of his life, when he cannot decide and guide him about what is possible and what is not, as well as the emotional and economic costs that his family will bear. Complete information to the patient and family is a physician's obligation to make informed decisions (20).

Non-maleficence may correspond to the need to adapt the therapeutic effort, or to limit the therapeutic effort with the objective of not giving futile treatments to the patients and not falling into dysthanasia. The dysthanasia refers to the futile effort of the doctor to prolong the life of the patient, or to make slower the death with the consequent anguish and suffering of the patient and its family (21). To avoid the dysthanasia it is important to know the term of adequacy of the therapeutic effort or the limitation of the therapeutic effort. This process provides treatment to the patient's condition. It is necessary to evaluate the clinical state of a patient and make a decision based on medical evidence, not to install a treatment or to suspend one already initiated. In the case of the pandemic, the appropriate therapeutic effort will be to remove the patient from the Intensive Care Unit, to discontinue artificial ventilation, and to forego multiple medications, as happens in patients who have acquired a nosocomial infection and are receiving several medications when they present multiple organ failure. The patient will have medical assistance, palliation of his illness and accompaniment at all times. The relationship between the physician and the family should be as close as possible, and any measures taken with the patient should be reported (22).

Benefit is related to symptom control and to favoring orthothanasia, which is synonymous with a dignified death. This is the form

of death preferred by bioethics and legislation in Mexico, and refers to respecting the moment of the patient's natural death, without prolonging or shortening life (21). It is essential to know how to give bad news (24) and to accompany and encourage mourning, since it is part of the end of life (23).

Justice has to do with the need to allocate correctly scarce resources, especially those that are not divisible. Maximizing the good for the greatest number of patients is one of the goals to be achieved in health crises. The goal is to give everyone a chance, not to discriminate and to abandon unfair prejudices such as status, age and race. This means applying triage well, attached to medical evidence, following predictive models and without preferences (25); caring for the vulnerable person and offering him/her opportunities (26) (27).

Solidarity is to understand the difficult scenario presented by isolation and to seek accompaniment through the means possible for the patient and his/her family. Solidarity refers to standing by the sick person. It requires action and true concern for others. Parting is a particularly complex situation, since the patient and his/her family do not have the opportunity to say goodbye, nor to follow the cultural and family rites of the end of life (28).

Non-abandonment is a fundamental principle in the midst of the health crisis, which refers to not failing to care for any patient. It is indispensable that the patient who refuses some treatment proposed by the doctor be certain that health personnel will not neglect him or her; it is essential to avoid a lack of hope, whatever the patient's situation may be (29).

The principle of double effect can be present in decisions such as palliative sedation. The intention of palliative sedation is to decrease the patient's refractory symptoms. The three most important are: dyspnea, pain and delirium. There is a possibility that sedation will result in an end to life with a patient asleep, that there will be no goodbye. Another possibility that should be warned to the rela-

tives is the possibility of a nonreversible respiratory failure. When the patient is able to decide, he or she will do so, and if not, the family members will be asked for informed consent. Although there are many authors who do not favor this procedure, when the ventilator is a futile or extraordinary measure, palliative sedation is the alternative (30).

Conclusions

In a time of global crisis, which threatens the health, social and economic stability of the planet, it is necessary to reflect in order to change the direction in which human life is going.

The Covid-19 disease appeared in December 2019 and has shown that radical changes in the way of life are possible. Social isolation, the change of model in work, in education, in the way health services are provided, show that human beings are resilient. It also brings to the surface the debts of the states to their citizens: health services are not enough. It is understandable that a global health crisis puts the most efficient health services to the test. In Mexico, these inadequacies have been aggravated by the backlog of health coverage, the lack of attention to the obesity epidemic, insufficient investment in updating hospital centers, and little attention to the new needs of the population in palliative and curative models.

Today's medicine has other tools inscribed in the legislation, little developed in practice: palliative care and bioethics. In a framework of need and scarcity, palliation is empowered based on bioethical principles, and make evident the need to develop this knowledge and promote it with a larger budget, which is designated to the training of health personnel, the development of hospital units with palliative care and primary care at home.

One year after the start of the pandemic, there are many questions to be answered, many evidences to be discovered, many figures to be revealed. The emergence of a new infectious and contagious

disease on a planet with nearly eight billion people has been a challenge, and it must be an engine of change in favor of life care, health care, and the common home of all lives.

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