

Preventive Measures and Adequate Management of Cancer Patients in Times of COVID-19

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Medidas de Prevenção e Manejo Adequado do Paciente Oncológico em Tempos de Covid-19

Medidas de Prevención y Manejo Adequado de Pacientes con Cáncer en Tiempos de Covid-19

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ABSTRACT

Introduction: Cancer patients are more likely to contract coronavirus disease 2019 (COVID-19) due to the fragility that the disease and its treatment cause. The most important measure during the pandemic is prevention against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in order to not interrupt cancer treatment or worsen the prognosis of these patients. **Objective:** To highlight information that contributes to strengthen COVID-19 prevention actions and adequate management of cancer patients in times of pandemic. **Method:** An integrative literature review was carried out with searches in the databases of the Virtual Health Library and Google Scholar. They were crossed with the Boolean operator and the descriptors in Portuguese and in English, “neoplasms”, “disease prevention”, “coronavirus” and “pandemics”. Inclusion criteria were full articles, published and available in full. Exclusion criteria: irrelevance to the theme and paid access. Eventually, 26 publications were identified and 17 were selected. **Results:** Most publications found that prevention measures include staying home, hands and objects hygiene, dissemination of knowledge on how to prevent COVID-19. In addition to limit patients in hospital settings, modify treatment modalities to reduce the likelihood of myelosuppression and postpone surgical intervention for benign tumors. **Conclusion:** The adoption of specific measures and management for cancer patients reduces the possibility of infection by SARS-CoV-2 through practices as: individual hygiene and protection measures, avoiding agglomerations, remote medicine, alternative treatments and postponement of surgical interventions.

Key words: Neoplasms/prevention & control; Coronavirus Infections; Disease Prevention.

RESUMO

Introdução: Pacientes com câncer têm maior possibilidade de contrair a doença pelo coronavírus 2019 (Covid-19) em razão da fragilidade que a doença e seu respectivo tratamento trazem. A medida mais importante durante a pandemia é a prevenção contra a síndrome respiratória aguda grave do coronavírus 2 (Sars-CoV-2), a fim de não interromper o tratamento do câncer ou piorar o prognóstico desses pacientes. **Objetivo:** Evidenciar conhecimentos que contribuam para o fortalecimento de ações de prevenção à Covid-19 e manejo adequado do paciente com câncer em tempo de pandemia. **Método:** Revisão integrativa da literatura com busca nas bases de dados da Biblioteca Virtual em Saúde e do Google Scholar. Foram cruzados com o operador booleano *and* e os descritores em português e inglês, “neoplasias”, “prevenção de doenças”, “coronavírus” e “pandemias”. Critérios de inclusão: artigos completos, publicados e disponíveis na íntegra. Critério de exclusão: a não pertinência ao tema e não possuir acesso gratuito. Foram identificadas 26 publicações e selecionaram-se, ao final, 17. **Resultados:** A maioria das publicações detectou que, entre as medidas de prevenção, destacam-se ficar em casa, higienização das mãos e objetos, e disseminação de conhecimento sobre como prevenir a Covid-19. Além da limitação dos pacientes em ambientes hospitalares, modificação das modalidades de tratamento para que se reduza a probabilidade de mielossupressão e adiamento da intervenção cirúrgica para tumores benignos. **Conclusão:** A adoção de medidas e manejos específicos a pacientes oncológicos reduzem a possibilidade de infecção pelo Sars-CoV-2, por meio de práticas como medidas de higiene e proteção individuais, evitar aglomerações, medicina remota, tratamentos alternativos e postergar intervenções cirúrgicas.

Palavras-chave: Neoplasias/prevenção & controle; Infecções por Coronavírus; Prevenção de Doenças.

RESUMEN

Introducción: Pacientes con cáncer tienen más probabilidades de contraer la enfermedad del coronavirus 2019 (Covid-19) debido a la fragilidad que conlleva la enfermedad y su tratamiento. La medida más importante durante la pandemia es la prevención contra el síndrome respiratorio agudo grave del coronavirus 2 (Sars-CoV-2), para no interrumpir el tratamiento del cáncer o empeorar el pronóstico de estos pacientes. **Objetivo:** Resaltar el conocimiento que contribuye al fortalecimiento de las acciones de prevención del Covid-19 y el manejo adecuado de los pacientes con cáncer en tiempos de pandemia. **Método:** Revisión bibliográfica integradora con búsquedas en las bases de datos de la Biblioteca Virtual en Salud y Google Scholar. Se cruzaron con el operador booleano *and* y los descriptores en portugués e inglés, “neoplasias”, “prevención de enfermedades”, “coronavirus” y “pandemias”. Criterios de inclusión: artículos completos, publicados y disponibles en su totalidad; Criterios de exclusión: no relevancia para el tema y no tener acceso libre. Se identificaron 26 y se seleccionaron 17 publicaciones al final. **Resultados:** La mayoría de las publicaciones encontraron que las medidas de prevención incluyen quedarse en casa, higiene de manos y objetos, diseminación de conocimiento sobre cómo prevenir el Covid-19. Además de limitar a los pacientes en entornos hospitalarios, modificar las modalidades de tratamiento para reducir la probabilidad de mielosupresión, posponiendo la intervención quirúrgica para tumores benignos. **Conclusión:** La adopción de medidas y manejo específicos para pacientes con cáncer reduce la posibilidad de infección por Sars-CoV-2, a través de prácticas como: medidas de higiene y protección individual, evitando el hacinamiento, la medicina remota, tratamientos alternativos y posponiendo intervenciones quirúrgicas.

Palabras clave: Neoplasias/prevención & control; Infecciones por Coronavirus; Prevención de Enfermedades.

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INTRODUCTION

Cancer is a disease that affects a considerable portion of the world population whose etiology is involved with different risk factors. Its manifestation is related to several causes, among which, stand out: genetic condition, lifestyle, environmental and socioeconomic conditions¹. Cells cancer lose control of cell multiplication, not being influenced and not responding directly for hormone or growth factors, continuing to multiply until they form tumors².

Even with great technological and scientific advances that favor better understanding of cancer diagnosis and treatment, this infirmity is still a big public health problem³. Cancer is a morbidity that must be diagnosed in time and subsequently initiate the respective treatment to grant more survival to the patient affected. According to estimates of the National Cancer Institute José Alencar Gomes da Silva (INCA)⁴ about cancer epidemiology, for each year of the triennium 2020-2022, 625 thousand new cases are anticipated in Brazil.

Concomitant with these alarming data of new cancer cases, another player comes into scene that causes even more stress to public health, the spread of the disease by coronavirus 2019 (coronavirus disease 2019 – COVID-19). The COVID-19 pandemic resulted in a considerable number of infected patients in the whole world and is a great challenge for the humanity⁵.

Because it is a new disease, little is known about it. The existing evidences indicate it is a new coronary pneumonia that affects the respiratory tract through droplets and close contact and possibility of transmission by aerosol⁶. There are no defined instructions in the literature structuring the strategies of care to oncologic patients during the pandemic and with this experience, it is possible to determine the reorganization of the oncologic care⁵.

Patients with cancer have more odds of contracting COVID-19 because of the fragility the disease and its respective treatment cause. One of the fragilities is caused by the effects of the systemic immunosuppressor condition and can compromise the general health of the oncologic individual and lead to severer complications of the disease⁷.

During the pandemic period, it must be considered the multi-disciplinary team approach for accurate diagnosis and treatment so the most important measure in this situation is prevention against the respiratory disease to avoid interruption or worsening the prognosis of these patients. As an example, the relevance of the screening is reinforced, mainly for relatives and companions to protect against a possible infection⁸.

It is important to emphasize that, further to the screening, protocols for patients, specially the oncologic

and for the clinical team must be implemented and strengthen the preventive actions as hygiene and individual protective measures to block the novel coronavirus dissemination. This is important to accentuate because in many cases, according to the stage and type of cancer, invasive interventions are indispensable even in complex situations as what is being experienced today in health⁹.

Another important factor is the psychological counseling to these patients during the pandemic since they suffer an excessive stressful condition because of the cancer and its side effects and harmful to the general health of the individual added to the uncertainties of both diseases. It is recommended and possible to conduct the consultations through the Internet in order to preserve and protect the patient from potential agglomerations⁹.

In that line of thought, this study has the objective of demonstrate and systematize the knowledge that contribute for the strengthening of preventive actions against COVID-19 and appropriate management of the patient with cancer in the pandemic.

METHOD

Integrative review of the scientific literature allowing a wide methodological approach and understanding the phenomenon analyzed. Further to providing a synthesis of the knowledge of relevant articles¹⁰.

The systematic plan to execute this integrative review consisted in four stages: search for publications in the databases; reading titles and abstracts of all the publications found; translation and full reading of the articles selected and elaboration of a table with the information encountered.

The publications were collected from the databases “Health Virtual Library”(BVS) and Google Scholar. The descriptors utilized were selected from the structured vocabulary Descriptors of Sciences of Health (DeCS), in Portuguese and in English that were crossed with the Boolean operator *and* “neoplasms”, “prevention of diseases”, “coronavirus” and “pandemics”. As inclusion criteria, it was established: full articles published and full free for reading articles published and available. The exclusion criteria considered the articles that, after the identification of titles and abstracts, fail to match the core objective of the research, that is, not pertinent to the theme and paid access.

RESULTS

The search was conducted from May 15 to 31, 2020. During the search, 26 publications were identified

utilizing the descriptors chosen. After reading the title and abstract of the 26 articles, eight publications were excluded because they were not pertinent to the theme of the articles and one was excluded because the access was unavailable.

Eventually, 17 publications of 2020, being 15 found exclusively in the base Medical Literature Analysis and Retrieval System (MEDLINE) were selected. Five articles

in English, two in Portuguese and ten in Chinese. The information collected are presented in Table 1.

DISCUSSION

On January 30, 2020, the World Health Organization (WHO) declared that the severe acute respiratory syndrome coronavirus 2 – Sars-CoV-2 is a Public Health

Table 1. Publications selected in the bases of scientific literature on cancer, prevention and COVID-19

Source	Title of the Article	Main Author	Journal/year	Considerations/Theme
MEDLINE	Discussion on diagnosis and treatment of hepatobiliary malignancies during the outbreak of COVID-19	Wu et al.	Zhonghua Zhong liu za zhi/ 2020	To understand the new pneumonia by coronavirus, the treatment strategy must be modified timely during the epidemic and more appropriate treatment methods should be adopted to minimize the adverse effect on tumor treatment.
MEDLINE	Medical diagnosis and treatment strategies for malignant tumors of the digestive system during the outbreak of COVID-19	Zhang e Xu	Zhonghua Zhong Liu Za Zhi/2020	Not only the patients, their family, physicians and employees must be protected against the infection by the novel coronavirus, but it should be attempted to minimize the impact of the epidemic in the diagnosis and treatment of patients with cancer.
MEDLINE	Surgical treatment for esophageal cancer during the outbreak of COVID-19	Liet al.	Zhonghua Zhong Liu Za Zhi/ 2020	COVID-19 has brought huge impacts to everyone and lifestyles, especially to the medical and health system. It also brought great challenges to treat patients with cancer.
MEDLINE	Surgical treatment strategy for digestive system malignancies during the outbreak of COVID-19	Fuhai et al.	Zhonghua Zhong Liu Za Zhi/ 2020	Although the oncologists are not fighting in the front line against the epidemic, during this special period, not only the patients, their families and the medical staff must be protected against the infection by the novel coronavirus, but also it should be attempted to minimize the impact of the epidemic in the diagnosis and treatment of patients with cancer.
MEDLINE	Health management of breast cancer patients outside the hospital during the outbreak of 2019 novel coronavirus disease	Liu et al.	Zhonghua Zhong liu za zhi/ 2020	Breast cancer patients must synthetically consider the epidemic prevention situation of the stage of the disease and previous therapeutic regimen to decide. If necessary, after professional discussion and communication between doctors and patients online or offline, the hospital visiting time should be delayed through seeking alternative treatment schemes, and psychological counseling for patients should be paid attention to at the same time.

to be continued

Table 1. continuation

Source	Title of the Article	Main Author	Journal/year	Considerations/Theme
MEDLINE	Diagnostic and therapeutic strategies of lung cancer patients during the outbreak of 2019 novel coronavirus disease (COVID-19)	Yang et al.	Zhonghua Zhong Liu Za Zhi/ 2020	Strict protection for lung cancer patients is needed to avoid infection. Lung cancer patients are difficult to differentiate from patients with COVID-19 in terms of clinical symptoms, which will bring great trouble to the clinical work and physical and mental health of lung cancer patients.
MEDLINE	The differential diagnosis of pulmonary infiltrates in cancer patients during the outbreak of the 2019 novel coronavirus disease	Zunet al.	Zhonghua Zhong liu za zhi/ 2020	The 2019 novel coronavirus disease (COVID-19) complicates the clinical scenario of pulmonary infiltrates in cancer patients. The epidemic history, clinical manifestation, CT scan image and lab test should be taken into combined consideration.
MEDLINE	Management strategies for three patients with gynecological malignancies during the outbreak of COVID-19	Zhanget al.	Zhonghua fu Chan ke za zhi/ 2020	Patients with gynecological malignant tumors are high-risk groups prone to COVID-19, and gynecological oncologists need to carry out education, prevention, control and treatment according to specific conditions. The management strategy of patients with malignant gynecologic tumors during the epidemic must consider three factors: (1) location of the patient and the hospital in relation to the epidemic condition of the region; (2) the specific type of the tumor of the patient and current stage of the treatment; (3) what can be provided currently.
MEDLINE	Clinical characteristics and coping strategies of neoplasms with 2019 novel coronavirus infection	Zhao et al.	Zhongguo Fei Ai Za Zhi/ 2020	Patients with tumor are at high risk of this pathogen because of their impaired immune function. Identifying tumor patients with 2019 novel coronavirus disease (COVID-19) early and understanding its distribution characteristics can help to improve the cure rate of patients and control the epidemic and development of SARS-CoV-2 much better.
MEDLINE	COVID19 prevention & care; a cancer specific guideline	Motlagh et al.	Arch Iran Med/ 2020	Recommendations: first, limiting the exposure of cancer patients to medical environments and second, modifying the treatment modalities in a manner that reduces the probability of myelosuppression such as delaying elective diagnostic and therapeutic services, shortening the treatment course, or prolonging the interval between treatment courses.

to be continued

Table 1. continuation

Source	Title of the Article	Main Author	Journal/ year	Considerations/Theme
MEDLINE	Cancer care delivery challenges amidst coronavirus disease - 19 (COVID-19) Outbreak: specific precautions for cancer patients and cancer care providers to prevent spread	Shankar et al.	Asian Pac J Cancer Prev/2020	Oncologists should be more attentive to detect coronavirus infection early, as any type of advanced cancer is at much higher risk for unfavorable outcomes. Oncology communities must ensure that cancer patients should spend more time at home and less time out in the community. There is paucity of information on novel coronavirus infection and its impact on cancer patients and cancer care providers.
MEDLINE	Treatment strategy for gastrointestinal tumor under the outbreak of novel coronavirus pneumonia in China	Chen e Peng	Zhonghua Wei Chang Wai Ke Za Zhi/2020	Prevention measures for both medical staffs and the screen-negative admitted patients should also be enhanced because false negative is possible. Medical instruments should be properly discarded or disinfected. Surgical intervention for benign tumor should be postponed. It is believed that with the unprecedented joint efforts of doctors and patients, eventually victory will come.
MEDLINE	Caring for patients with cancer in the COVID-19 era	van de Haar et al.	Nat Med/2020	The current COVID-19 pandemic challenges oncologists to profoundly re-organize oncological care in order to dramatically reduce hospital visits and admissions and therapy-induced immune-related complications without compromising cancer outcomes.
MEDLINE	Strategic plan for management of COVID-19 in paediatric haematology and oncology departments	He et al.	Lancet Haematol/ 2020	Information on the prevention and control of COVID-19 can be given to patients and their families in different forms, such as notices and booklets, with instructions on how to properly wash hands, wear a mask, and cough. The hospital should provide various support for isolated children and their parents, including psychological support. The recommendations should be updated continuously with clinical accumulated evidences and the increase in knowledge about COVID-19.
MEDLINE	COVID-19 and long-term conditions: what if you have cancer, diabetes, or chronic kidney disease?	Extance	BMJ/2020	Several classes of cancer treatment, including chemotherapy and immunotherapy, can suppress immune systems and make patients more susceptible to COVID-19 infection. Patients with cancer have to live with uncertainty as the disease unfolds.

to be continued

Table 1. continuation

Source	Title of the Article	Main Author	Journal/year	Considerations/Theme
Google Scholar	Cuidados da fisioterapia no paciente oncológico com Covid-19	Marchon et al.	Rev Bras Cancerol/ 2020	The oncologic patient presents physiopathological mechanisms common to COVID-19, that can be exacerbated by coronavirus demanding more attention of the healthcare providers for prevention, identification and early intervention of the symptoms.
Google Scholar	Guidelines on the diagnosis, treatment and isolation of patients with COVID-19	Dias et al.	JInfect Control/ 2020	To assist both in the diagnostic suspicion of COVID-19 and in the differential diagnosis, it is necessary to have knowledge about viral etiologies of pneumonia/severe acute respiratory syndrome as well as epidemiological data.

emergency of international concern. On February 21, 2020 the National Health Commission named the new term in English – COVID-19 – of pneumonia for coronary disease. The WHO, on March 11 of the current year, considered COVID-19 a pandemic^{11,12}.

The Sars-CoV-2 virus is highly contagious, it spreads through respiratory secretions and contact, can evolve quickly to severe pneumonia, in addition to be a concern for the world population and investigators. Many authors call it a merciless disaster, a sudden and severe public emergency¹²⁻¹⁵. According to Zhanget al.¹⁶, COVID-19 is a disease that can be fatal, there is the possibility of diffuse alveolar lesion and progressive respiratory failure leading to death.

This conjuncture not only unchained a world health problem, but also a strong threat to the health infrastructure that is already underserved in many countries. It is known that this reality stimulates the formulation of new strategies to treat other diseases. Healthcare providers are the main axis to reach the correct diagnosis and the respective conduction of the treatment and, for this, the diagnosis must be consistent for the proper referral of a patient with confirmed diagnosis of cancer.

Together with the pandemic, it was created a scenario of anxiety, concern, fear and uncertainty especially in oncologic patients. According to Extance¹⁷, oncologic patients are more anxious than ever before, despite cancer services continue operating during the pandemic. This anxiety is motivated by the fear of interrupting the treatment or contract the virus. Because patients with cancer receive immunosuppressors, in addition of presenting poor nutritional status, they are more susceptible to infection and become a high-risk population in this pandemic^{15,17-19}.

It is discussed the relation of oncologic patients with more odds of infection compared to healthy individuals, since oncologic patients are submitted to treatments that can weaken the immune system because of the systemic immunosuppression caused by the tumor and by the treatment¹⁶.

However, it is debated that it is quite unlikely the relation of the increase of incidence of COVID-19 with patients submitted to anticancer treatment, since healthy persons have no effective immunity to COVID-19⁵.

Nevertheless, according to Marchon et al.¹³, there are more severe complications of infection and aggravation of the COVID-19 condition in the patient with cancer, which increases the risk of mechanic ventilation and Intensive Care Unit (ICU) or death in comparison with patients without cancer. This corroborates the data of the study of Motlagh et al.¹⁵, where individuals with cancer who contracted COVID-19 have 3.5 times more odds of mechanic ventilation, admission or death in ICU if compared with patients without cancer. And confirms the studies of Shankar et al.⁷, who indicated that the severity of the risk of infection by COVID-19 in individuals with cancer is twofold bigger than the population without cancer.

Thus, this scenario contributes for the anxiety and psychological pressure of the patients. The psychological status of the individuals should not be ignored¹⁴. Having in mind that cured patients fear the relapse of the tumor and unpleasant feelings as fear and despair outstand because of the epidemic, this will imply in mental and physical changes, modifications in the cognitive, emotional, physiological and behavioral fields^{12,14}.

Psychological alterations can translate into physiological manifestations as the aggravation of the disease symptoms, which hampers the therapeutic process. During the epidemic, the health professional team also experiences

strong psychological pressure, which unchains depressive conditions, anxiety and insomnia¹².

In this context, it is recommended the initiative of psychological counseling and online intervention as a way to cope with the epidemic correctly and keep the physical and mental health of everyone¹². The psychological intervention of patients and medical staff during the pandemic is essential, like the empathic knowledge in the psychological intervention, because the patient and its family live the double burden of uncertainty. Therefore, the patients must be encouraged to think positively^{12,14}. The hospital must help isolated children and their parents, including psychological support²⁰.

The online consultation platform allows emotional counseling and guidance, which helps to fight the epidemic and the disease together. And this platform favors the management of the individuals mobility, helping to control the virus spread^{12,18}.

More attention and care are necessary for the oncologic patients to avoid infections and new medical treatment methods must be incorporated as online medications purchase. It is recommended that medical problems that can be resolved virtually are concluded online¹⁴.

Regardless of the epidemic, oncologic patients are guided to reinforce their health, stay home and reduce going outdoors and agglomerations¹⁴. It is relevant to remind that the patient with cancer has similar physiopathological mechanisms of COVID-19 condition and that can be exacerbated by the virus contamination, which requires professionals to be more attentive to prevention, and early intervention of the symptoms¹³.

In relation to the recommendations of COVID-19 prevention for the oncologic population, it is advised to stay home, avoid close contact with others and wash hands with water and soap frequently. When sneezing or coughing, cover the mouth and nose with face cloth and discard immediately, avoid contact with the eyes and face and wear protective mask when outdoors. Disinfect equipment that are in contact with the hands frequently (mobile, door handles etc.); if necessary, wash the face and the body. Cook food well. Patients must reinforce nutritional intake, eat fresh fruits and vegetables if properly washed^{12,15,17}.

The patients are instructed to drink potable water, rest, sleep from seven to eight hours, practice physical activities to improve the immunity and better resistance, avoid contact with wild animals, pay attention to nourishment, avoid raw food, in addition to proper hands hygiene, mainly before meals because COVID-19 can potentially be fecal-orally transmitted^{12,14}.

Among the recommendations for the health system managers, according to the guidelines of Motlagh et

al.¹⁵, it is pertinent to have educational instruction for employees to update them with recent information and changes of the guidelines, mainly about oncologic patients and COVID-19. This corroborates the study of Liet al.¹², where health professionals should perform good quality work to educate the patients and their family. The recommendations for NGOs consist in expanding the dissemination of information and conscientization of the individuals through educational leaflets or programs and virtual video applicative.

It is observed that health education is fundamental for the dissemination of correct information and control of Sars-CoV-2, as well as the appropriate management of the oncologic patient during the pandemic, being primordial for the good quality of life of this population. These information, according to He et al.²⁰, can be disclosed through leaflets and flyers on how to make the correct hands hygiene and respiratory etiquette.

Within this perspective, some clinical conducts are performed in order to reduce the transmission of the disease to oncologic patients, preferentially through remote medicine, postponing surgeries and considering other treatments, but always analyzing the patient condition⁶. When the first line treatment of tumors is unable to be conducted because of epidemic control and prevention, the strategy should be adjusted timely and other alternatives of treatment must be utilized. The epidemic status of the region, type and stage of the tumor and the treatment must be considered, in addition to available strategies¹⁶.

The treatment of malignant tumors are radiotherapy and chemotherapy simultaneously. However, because of the prevention and control of the epidemic, the treatment cannot be performed, the strategy needs to be adjusted and alternative treatment should be utilized¹⁶.

It is advised to limit the exposure of these individuals to medical environments, in addition to modify and reduce the myelosuppression with chemotherapy regimens with less cycles. Prescribe outpatient chemotherapy regimens instead of hospitalization and enteral therapy over oral. Patient suspected of Sars-CoV-2 infection (fever and cough) is advised to cancel chemotherapy and try to make the essential consultations as soon as possible¹⁵.

As much as patients with lung cancer are subject to increasing care because of the similarity of the symptomatology with Sars-CoV-2 infection, as cough, fatigue, respiratory difficulty and immunosuppression condition, the possibility of pneumonias increase¹³.

In patients with febrile symptomatology and lung inflammation, it is indispensable to distinguish COVID-19 and, if necessary, to submit to nucleic acid 2019-nCoV to confirm the diagnosis¹². It is necessary

attention to lung imaging of patients with cancer history since lung metastasis can be confounded with lung compromise by the virus, especially pleural effusion¹⁵. In addition, the new disease complicates the clinical scenario of lung infiltrates in patients with cancer²¹.

Patients with cancer, mainly with malignant tumors, appear to be more susceptible of being diagnosed with COVID-19 and present severer symptoms⁶.

It is recommended still short-term radiotherapy. It is necessary that all the patients wear masks during the treatment, even for radiotherapy of skull or head and neck cancer. In case of bone marrow transplantation, higher protection is advised for patients and professionals¹⁵.

The pandemic requires medical resources that inevitably are reassigned and the resources for patients with cancer may be scarce¹⁶. Furthermore, the diagnosis of cancer demands materials, personnel and facilities, which can be contaminated and create imminent risk of contamination of all the involved and with this, a great possibility of crossed contamination. However, in this specific period, the difficulties of prevention and control are unprecedented because of the increasing demand from COVID-19 infected patients in the health services⁶.

The professionals involved in the treatment of oncologic patients are advised that, had any suspected symptom of Sars-CoV-2 appear, they should leave the team immediately and self-isolate themselves¹⁵.

Nevertheless, because no specific definition for the diagnosis of COVID-19 exist, professionals who have disease-related symptoms, keep isolated which reduces the health work force causing a huge damage to the service. But, given COVID-19 high rate of transmission, all health professionals are responsible to ensure the patients are not exposed to the virus⁵. Within this perspective, the collective effort, the diagnosis and the treatment of cancer¹⁸ will succeed in the pandemic.

Oncologists need to be attentive because patients with cancer are more susceptible to worse prognosis than other individuals if they are infected by coronavirus. Still, a more thorough evaluation is required when oncologic patients have fever and are submitted or not to COVID-19 testing, since there are criteria pro and against its use. However, the treatment of the disease is interrupted only if the patient presents symptoms or is living with a person infected by this novel virus. Furthermore, it is a decision to be taken with the team that follows and participates of the treatment because no scientific evidences confirming this fact⁷ exist.

According to Dias et al.²², the diagnosis of COVID-19 is complex because several factors need to be evaluated, particularly if chest tomography is not enough to attest or track the disease COVID-19. Attention is drawn to

isolate only the symptomatic, care must be taken with the population in general in order to control the pandemic.

New measures related to the pandemic are being implemented with increasing development of modern medicine, health professionals following up patients through tele-medicine and Internet; individuals in fragile conditions needing care and protection to their lives as those with cancer do not need to be received in a contaminated environment as hospitals, consultation rooms, and in-person consultations recommended only when needed²³.

CONCLUSION

The pandemic caused by COVID-19 is gloomy, it is an unprecedented problematic, demanding permanent surveillance in health services because of difficult diagnosis, and to provide a consistent treatment of the infirmity encumbering the service increasingly. The risk of infection is directly associated with the proximity of persons and objects contaminated and the consultation at hospitals signify a potential increased risk of contamination.

There are patients more vulnerable to be contaminated, among them, patients with cancer submitted to treatments that reduce the immune system; in addition, the diagnosis and the treatment require their presence in hospitals, increasing the threat of contamination. In addition, this public is living under high psychological pressure because of the uncertainties of the treatment or fear of contracting the Sars-CoV-2 virus.

Special/specific management and measures are important for these patients to reduce the possibility of infection by COVID-19 through practices as: hygiene measures and individual protection, boil food extensively, strengthen nutrition, avoid contact with wild animals and agglomerations. For clinical management of oncologic patient, remote medicine, alternative treatment and postponement of surgical interventions are recommended.

However, the evaluation of the clinical condition of each patient must be done to adopt these practices as the actual possibility of contamination because of cancer inherent dangers need to be considered. The current condition opens future scenarios for the preparation of professionals and health service.

The study has limitations, it needs to be stated, because is a new theme and demands further analyzes in future studies.

CONTRIBUTIONS

All the authors contributed substantially for the conception and/or design of the study, gathering, analysis

and/or interpretation of the data, wording and/or critical review and approved the final version to be published.

DECLARATION OF CONFLICT OF INTERESTS

There is no conflict of interests to declare.

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