



CERVICAL CANCER AS A COMORBIDITY FOR COVID-19 PATIENTS- RECOMMENDATIONS AND CHALLENGES

Community Medicine

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ABSTRACT

The outbreak of the pandemic COVID-19 or SARS-CoV-2 (Severe Acute Respiratory Syndrome Corona Virus 2) has impacted the world population. On November 1, 2020, the spread of the virus in India had caused more than 8,000,000 cases and 110,000 deaths. In this paper, we studied the various comorbidities of COVID-19 including hypertension, cancer and diabetes. People with pre-existing comorbidities are more prone to have intense course and progression of COVID-19. Due to immunosuppression, cancer patients are more susceptible to be infected. Examinations from various geographical regions denote that the Case Fatality Rate (CFR) of cancer patients with SARS-CoV-2 is from 3.5% to 60%. However, oncologic treatments cannot be deferred for a longer time. Thus, proper execution of treatment is required in such malignancies. In this research, we focus on cervical cancer as a comorbidity for COVID-19 and the preferences required for cervical cancer patients based on the level of progression of cancer.

KEYWORDS

Cancer, Case Fatality Rate, Comorbidity, SARS-CoV-2.

INTRODUCTION

With the outbreak of COVID-19 from Wuhan, China [1] on 31-December 2019, it has become an increasing concern for the entire geographical area. The health authorities of China incorporated intensive inspections and investigations on epidemiology and the closure of markets by the beginning of 2020 [2]. World Health Organization (WHO), global media, and virologist, frequently put on knowledge and awareness about virus transmission and the causalities. Thus, it became the focus of health care providers over the world in the last few months. WHO declared this outbreak as global pandemic. The virus spread across the world by affecting the health of the entire population.

Any epidemic or pandemic can increase the fear and stress of people, particularly if they are already diagnosed with some medical conditions like cancer. The government has been endorsing several strategies to minimize the number of COVID-19 infections. COVID-19 has even affected the mental health of quarantined people as they have missed out on the physical interventions and direct communications [3-4]. Therefore, there is a necessity to employ psychologists or people with experience in psychiatry for constant interaction with quarantined people.

Cancer patients have immunosuppression when compared to people with normal health. This is due to chemotherapy and medications related to cancer. When the cells of the cervix get infected with cancer, it leads to cervical cancer [5]. The virus that causes cervical cancer is the Human Papilloma Virus (HPV). Around 16% of the total cancer cases in Indian women is cervical cancer. It is the second common cancer in Indian women after breast cancer. The main reason for this is the late diagnosis of cancer in developing countries. However, it is a good sign that between 2013 to 2018, India witnessed a drop of 21 percent in the total count of cervical cancer.

On 29th October 2020, the International Health Regulations (IHR) Emergency Committee advised that the public health on COVID-19 is an international concern. The COVID-19 cases across the world continue to rise with over 46 million cases and over 1.2 million deaths are reported. Having stated the epidemiological situation, it is required to understand the recommendations and to decrease the limit of exposure to the virus. In this paper, we discuss cervical cancer as a comorbidity for COVID-19, Preferences required in pandemic for cervical cancer patients concerning the seriousness of cancer, the recommendations in hospitals to reduce the spread of the virus and finally we discuss cervical cancer as a universal burden.

Cervical Cancer As A Comorbidity For Covid-19

Patients with comorbidities have depreciated results when compared

to patients without. WHO pointed that around 15 to 20 years is required for cervical cancer to occur in women having a good immune system. It requires only 4 to 8 years for women with a weak immune system like Human immunodeficiency virus (HIV) infected patients. Unfortunately, the existing system situation due to the pandemic has retarded the treatment and diagnosis of other diseases including cervical cancer. We studied the CFR of COVID-19 in cancer patients and analyzed the various recommendations and clinical factors [6]. Out of a total of 3101 hospital admissions, the positive cases for SARS-CoV-2 was 186 patients.

A comorbidity is a medical condition where a person is having more than one existing health condition. Pre-existing cancer is a comorbidity condition [7]. Diabetic patients and people with chronic respiratory and pulmonary illnesses have a high risk of COVID-19. The primary contacts of a COVID-19 patient have 4 times the possibility of being infected. According to the studies from India, the CFR of cervical cancer patients in India is 7.6 times that of the average. The risk comorbidities of cervical cancer include diabetes, cancer, respiratory and pulmonary illness.

Cancer patients were categorized as COVID-19 vulnerable patients. This has affected cancer management globally. In a study of 686 patients, 25% of the patients were reported having one comorbidity. The prevailing comorbidity includes hypertension (16.9%) and diabetes (8.2%).

The histologic study shows thrombosis and microangiopathy in pulmonary vessels of COVID-19 patients [8]. Thrombophilia, induced by cancer is sustained in cervical cancer patients. Therefore, it is advisable for cancer patients with respiratory symptoms and uncertain COVID-19 should be isolated and undergone a swab test [9].

Preferences For Cervical Cancer In Pandemic

The treatment levels of cervical cancer depend on several features, including the stage of cancer, the overall health of women, preferences and other side effects. If cervical cancer has not spread beyond the cervix, the treatment procedures include conization, hysterectomy and radical trachelectomy. If cancer has spread beyond the cervix, exenteration is the common treatment.

Priorities for cervical cancer patients can be subdivided into three categories (1) high priority (2) medium priority (3) low priority. Table 1 indicates these categories. Patients with high priority symptoms are advised to visit a less crowded clinic. The patients with medium priority can have the option to postpone the treatment for a maximum of two months. The low priority cases can be delayed for a maximum of four months.

Table 1 The Classification Of Symptoms As High, Medium And Low Priority Situation In Cervical Cancer

High priority	Medium priority	Low priority
Abdominal complications after Radiotherapy	No complications after cervical cancer surgery	Routine visit
Bleeding from pelvic, occlusion in the intestine, bowel perforation	Regular pelvic examination at intervals	Undergone an early-stage cancer surgery
Symptoms of thrombosis, need to undergo chemoradiotherapy	Due to hysterectomy	Fistulae

If the cancer is stage 1, more treatment priority is required. If the local conditions permit, treatment needs to be initiated or continued. The majority of the patients in this stage will be less than 60 years [10]. The treatment strategies for these categories of patients include radiation therapy or surgery. Surgery is an acceptable treatment, as it can conclude cancer. If the current local situation demands postponement, then surgical treatments can be delayed for 4 to 8 weeks [11]. Radiation treatments require multiple visits to the health care center. Radiation treatments may not be available largely in low and medium-income countries. So, the physical movement will become a major constraint in this pandemic.

In progressive stages of cancer, chemoradiation is a reliable treatment. As chemoradiation is potentially antidotal, it needs to be prioritized. Studies have shown that a delay of more than 8 weeks for chemoradiation would cause a poorer survival rate [12]. Thus chemoradiation needs to be continued, without any interruptions. For advanced stages, chemoradiation and brachytherapy are advisable. First-line chemotherapy is a priority for the metastatic stage of cervical cancer. It ensures benefits and if the local conditions are permitted, then treatment needs to be continued. CIN3 patients with high-grade dysplasia, it is required to perform diagnostic examination within three months. If the patient requires a trachelectomy, then it can be delayed for a maximum of 8 weeks. For low-risk stages, conization and simple trachelectomy are advisable [13].

The RECOMMENDATIONS TO DECREASE THE SPREAD OF VIRUS

The Centre for Disease Control (CDC) (<https://www.cdc.gov/coronavirus/2019-ncov>) endorses the following conditions to limit the outbreak of the COVID-19 virus. It includes ensure social distancing and use face mask, whenever you are out of home, wash hands frequently, use the virtual mode of communication, avoid visitors for 2 weeks before surgery and 2 months after surgery, medical follow-ups through the virtual mode of communication.

It is equally important to ensure that these measures are not affecting the psychological health of patients. The Pre therapeutic examination for the virus needs to be examined and is widely available. WHO has approved multiple symptoms, upon which clinical screening needs to be conducted. The major diagnostic test for SARS-CoV-2 is RT-PCR. The examination is on nasopharyngeal secretions, based on the existence of viral RNA. A Computed Tomography (CT) is also performed in cases with breathing issues.

Virus-infected people have developed different symptoms. It affected different people in multiple ways. The symptoms range from breathing issues, diarrhea, headache, chest pain, fever, fatigue, rash on the skin, dry cough and conjunctivitis. However, in some infected people, the virus will take around 14 days to show symptoms.

On March 26, 2020, WHO declared the probability of transmission of COVID-19 virus from an intermediate agent like animal, wild or domestic category. As the zoonic origin of the virus is still unknown, WHO announced few recommendations for decrementing the transmission risk. It includes avoiding the consumption of undercooked animal commodities, self-hygiene while visiting the wet market or animal markets (<https://www.who.int/health-topics/coronavirus>).

CERVICAL CANCER-A UNIVERSAL BURDEN

In 2018, cervical cancer constituted around 7.5% of female cancer decease. Around 3 lakhs of women are deceased every year due to cervical cancer. Around 85% of cancerous death is in middle or low-income nations. Women with HIV are more likely to get cervical cancer. Studies state that their chances are six times more than non-

HIV women. Women in high-income countries are screened regularly or get vaccinated against HPV. The common screening methods include HPV DNA test, visual examination with acetic acid, pap test and liquid-based cytology.

World Health Assembly introduced a few strategies to improve the elimination rate of cervical cancer [14]. This is targeted for 2020 to 2030. The guidelines or tools introduced by WHO include vaccination, screening at proper intervals, and invasive cancer management. WHO is working with its partners and countries and developing programs that go in line with global strategies to decrement the virus. Community awareness among girls is an important target to control cervical cancer. HPV vaccination for girls from 9 to 14 years is the primary cancer prevention method and is cost-effective.

CONCLUSION

COVID-19 has affected over 180 countries, following mass casualties worldwide. In this paper, we explored the various comorbidities of COVID-19. From the available data, it is observed that the existence of comorbidities like hypertension, diabetes and cancer are extremely interrelated with COVID-19 and its mortality. We focused on cervical cancer as comorbidity and aimed to detect the CFR of cervical cancer patients in this pandemic period. Proper screening at regular intervals, cost-effective health care, and awareness is crucial to control the number of cancerous patients. Patients with one or more comorbidities should take all mandatory precautions to eliminate the infection of SARS CoV-2, as they have more chances to get infected.

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