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Corona-Virus Shadow Over Cancer

Balali R^{1*}, Fatemian FS¹ and Gharibzadeh S²

¹Department of Advanced Sciences and Technologies, University of Science and Culture, Tehran, Iran

²Cognitive Rehabilitation Clinic, Shahid Beheshti University, Tehran, Iran

Dear Editor,

Cancer is a group of diseases involving numerous changes in cell physiology, which ultimately leads to abnormal cell growth with the possibility of spread to other parts of the body. Cancer shows common symptoms including a detectable lump, abnormal bleeding, pain, anxiety, depression, prolonged cough and unexplained weight loss [1,2]. Recently corona-virus has spread worldwide, first identified in Wuhan, China, in December 2019. The common symptoms of this virus include fever, cough, myalgia and fatigue [3]. Older people and those faced with medical problems including cancer are more at risk [4].

Depending on the condition of corona-virus and protocols such as staying at home and being quarantined, the risk or severity of cancer may increase for the following reasons:

1. Cancer patients need intensive care and chemotherapy, but it is difficult for patients to go to medical centers because of corona-virus and its infection [5].

2. One of the effective factors in cancer prevention is the consumption of vitamin D, which inhibits a variety of cancers by inhibiting tumor angiogenesis, stimulating cell adhesion and intercellular communication. The main source of this vitamin is sunlight, but due to the presence of corona-virus and quarantine, people are less exposed to light [6].

3. The role of viruses such as corona-virus has also been directly shown in some types of cancers. For example, experiments have shown that the converting enzyme angiotensin-2 (ACE2), the main receptor for the corona-virus, is highly expressed on the surface of pancreatic cells and making them an excellent target for the virus. Tissue infection with this virus may increase the risk of pancreatic cancer [7].

4. Long-term quarantine may have more effects on cancer. For example, according to researches, sedentary lifestyle due to staying at home and not exercising may be 25% effective in developing cancers such as breast, pancreatic and colon cancers [8].

5. Due to the current situation and high mortality rate in covid-19 disease, doctors have focused more on treating covid-19 patients and less attention is paid to cancer patients.

6. Also it should be noted that corona-virus has stopped a lot of businesses and therefore has affected people and governments economically. On the other hand, cancer has increased costs in addition to pain and physical injury, and therefore it seems that in difficult economic conditions due to corona-virus, finding ways to help cancer patients is more necessary than ever.

Base on above mentioned points, it seems necessary to choose the right lifestyle, to perform proper physical activity and to protect against the risk of cancer. We hope that the medical endeavors be successful in stopping Covid-19 in the entire world.

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*Correspondence:

Reihaneh Balali, Department of Advanced Sciences and Technologies, University of Science and Culture, Tehran, Iran.

E-mail: r.b138028@gmail.com

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