



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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MONA MAGHRABY

Knowledge, Attitude and Perception of a sample of breast cancer patients towards COVID-19 pandemic

A Thesis

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List of Contents

<i>Subject</i>	<i>Page No.</i>
List of Abbreviations.....	i
List of Tables.....	ii
List of Figures	iii
Introduction	1
Aim of the Work.....	4
Review of Literature	
COVID-19.....	5
Cancer and COVID-19.....	11
Breast cancer	13
Breast cancer and COVID-19	20
Patients and Methods.....	26
Results.....	28
Discussion	40
Summary	47
Conclusion.....	49
References	50
Arabic Summary	—

List of Abbreviations

<i>Abbr.</i>	<i>Full-term</i>
AI	: Aromatase inhibitors
BC	: Breast cancer
CDC	: Center for Disease Control and Prevention
CoV	: Coronaviruses
DFS	: Disease free survival
ECG	: Electrocardiography
ESMO	: European Society for Medical Oncology
HER2	: Human epidermal growth factor receptor 2
IHC	: Immunohistochemistry
MERS-CoV	: Middle East respiratory syndrome coronavirus
NAC	: Neoadjuvant chemotherapy (NAC)
OS	: Overall survival
QoL	: Quality of life
SARS-CoV-2	: Severe acute respiratory syndrome coronavirus 2
SD	: Standard deviation
SPSS	: Statistical package for social science
TNBC	: triple negative breast cancer
WHO	: World Health Organization

List of Tables

Table No.	Title	Page No.
Table (1):	Patients' characteristics (n=50).....	29
Table (2):	Responses to survey questions.....	31
Table (3):	Correlations with question one (knowledge about COVID-19)	33
Table (4):	Correlations with question five (worry about COVID-19)	35
Table (5):	Correlations with question six (predominant bother to the patient or family member).....	37
Table (6):	Correlations with question eight (patients' most fear)	38

List of Figures

<i>Figure No.</i>	<i>Title</i>	<i>Page No.</i>
Figure (1):	The proportion of the total number of cases and deaths for the 10 most common cancer in 2018 in both sexes on right and in female population on left	14
Figure (2):	Molecular subtypes of breast cancer.....	15
Figure (3):	Patients' characteristics	30

Introduction

Coronaviruses (CoV) include severe acute respiratory syndrome (SARS), the Middle East respiratory syndrome-related coronavirus MERS-CoV and a novel coronavirus, which was named later as COVID-19. These viruses spread on 2002, 2012 and 2019 respectively (**Shahin, 2019**).

In December 2019, the infection started in Wuhan, China, since then it spread across the globe (**Lai et al., 2020**).

On 30th January 2020, the World Health Organization (WHO) declared the current outbreak of COVID-19 (**Li et al., 2020**) and later on 11th of Mar-2020 the number of cases outside China has increased and the number of affected countries has increased, that made the WHO to declare the COVID-19 as a global pandemic (**WHO, 2020**).

Infection with COVID-19, till April 5th, 2021, has resulted in more than 131 million laboratory-confirmed cases of COVID-19 and more than 2,850,000 confirmed deaths (**WHO, 2021**).

In April 5th, 2021, there are 205,000 COVID-19 cases and 12,163 total deaths in Egypt (**WHO, 2021**).

The COVID-19 has brought huge impacts to all people, especially to the medical and health systems. It has

also brought great challenges to the treatment of patients with cancer **(Li et al., 2020)** due to the nature of the cancer disease, characteristics of cancer patient (who usually have other comorbidities) and the nature of their Immuno-suppressive treatments. Patients with cancer may suffer more during this epidemic period, as their immunocompromised bodies are less likely to be able to fight against the COVID-19 if they got infected **(Zhao et al., 2020)**.

The Center for Disease Control and Prevention (CDC) has published the largest case series to date of COVID-19 in mainland China and reported a case fatality rate of 5.6% among patients with cancer **(Wu et al., 2020)**.

In one study, coronavirus pneumonia had a 24% mortality in cancer patients compared to 3% in non-cancer patients **(Kim et al., 2019)**.

Most chemotherapeutic agents can depress the immune system which increase infection risks for cancer patients. Cyclophosphamide, cisplatin, methotrexate and taxanes are among the most potent agents that result in bone marrow suppression in the form of thrombocytopenia, neutropenia & lymphopenia **(Ménétrier-Caux et al., 2019)**. Lymphopenia can induce progression to pneumonia amongst patients with respiratory viral infection. **(Han et al., 2021)**

A study from India showed that oncology patients are more worried about cancer progression than the COVID-19 and wish to continue chemotherapy during this pandemic (Ghosh et al., 2020).

Aim of the Work

CCOVID-19 pandemic scares everybody especially cancer patients. Some people were afraid from COVID-19 more than cancer, others were afraid from cancer more than COVID-19. This affects the treatment protocols for some patients. This is to assess the knowledge, attitude and perception among breast cancer patients to COVID-19 pandemic.

COVID-19

1. Epidemiology

In December 2019, a hospital in Wuhan reported a cluster of unknown severe pneumonia cases for the first time. Chinese scientists had isolated a novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; previously known as 2019-nCoV), from these patients with virus-infected pneumonia (**Zhou et al., 2020**). In January, 2020, the pathogen of this pneumonia was finally confirmed as severe acute respiratory syndrome coronavirus 2. (**Perlman 2020**).

2. Transmission

Although the outbreak is likely to have started from a zoonotic transmission event, it soon became clear that efficient person-to-person transmission was also occurring (**Cui et al., 2020**). The clinical spectrum of SARS-CoV-2 infection appears to be wide, including asymptomatic infection, mild upper respiratory tract illness, and severe viral pneumonia with respiratory failure and even death, with many patients being hospitalized with pneumonia (**Zhou et al., 2020**).

3. Incubation period

The time from exposure to COVID-19 to the moment when symptoms begin is, on average, 5-6 days and can range from 1-14 days. This is why people who have been exposed to the virus are advised to remain at home and stay away

from others, for 14 days, in order to prevent the spread of the virus, especially where testing is not easily available (**Lauer et al., 2020**).

4. Symptoms

The most common symptoms of COVID-19 are fever, dry cough and fatigue-(**Chen et al., 2020**). Other symptoms that may affect some patients include loss of taste or smell, nasal congestion, conjunctivitis (also known as red eyes), sore throat, headache, muscle or joint pain, different types of skin rash, nausea or vomiting, diarrhea, chills or dizziness (**Yang et al., 2020**).

Symptoms of severe COVID-19 disease include shortness of breath, loss of appetite, confusion, persistent pain or pressure in the chest and high grade fever (above 38 °C). Other less common symptoms are irritability, reduced consciousness (sometimes associated with seizures), anxiety, depression, sleep disorders, more severe and rare neurological complications such as strokes, encephalitis, delirium and nerve damage (**Hui et al., 2020**) (**Asselah et al., 2021**).

Most people infected with COVID-19 virus have mild disease and recover. Approximately 80% of laboratory confirmed patients have had mild to moderate disease, which includes non-pneumonia and pneumonia cases, 13.8% have severe disease (dyspnea, respiratory rate ≥ 30 /minute, blood