Research Article

Critically Ill Cancer Patients and Their Palliative Management in Intensive Care Unit in Derna City

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Abstract

Background: Cancers are a group of diseases associated with abnormal growth of cells. Without any check, the disease may keep on progressing ultimately leads to pre-mature death. They can arise anywhere in the body and can affect people from all age groups, socio-economic strata and race. Cancer is the leading cause of morbidity and mortality in the world. Only a few years ago, intensive care unit (ICU) mortality of critically ill cancer patients was unacceptably high, especially in those requiring invasive mechanical ventilation.

Patients and Methods: The descriptive retrospective study of 100 critically ill cancer patients who admitted to ICU unite in AL-Wahda hospital in Derna city. We collected from cases in the period from 1/10/2019 until 30/10/2022 (from archive files).

Result: A total of 100 patients were included in this study, their age were 50-70 years (39%) followed by >70 years (33%) and <50 years (28%). The majority of cancer patients had low education level (60%). However, few patients had high level of education (11%). More than half of patients (52%) were females and (48%) were males. Most of patients had low physical activity (60%). 47% of patients were smoker. However, 1% had family history of cancer.

Conclusion: Cancers are a group of diseases associated with abnormal growth of cells. Without any check, the disease may keep on progressing ultimately leads to pre-mature death.

Keywords: Cancer, Palliative, Management, Molecular Basis, Distress Symptoms.

Introduction

Cancers are a group of diseases associated with abnormal growth of cells. Without any check, the disease may keep on progressing ultimately leads to pre-mature death. They can arise anywhere in the body and can affect people from all age groups, socio-economic strata and race. Cancer is the leading cause of morbidity and mortality in the world. According to data by International Agency for Research on Cancer, there were 141 lakh new cancer cases, 82 lakh cancer deaths and 326 lakh people living with cancer in 2012 worldwide ^{1,3,7,21}.

Cancer is responsible for death overall. Cancer-death rates have decreased in both men and women due to reduced tobacco use, improved early detection (e.g., colorectal, breast, and cervix) and enhanced treatment options^{2,4,5}. Currently, critical care medicine contributes as a supportive care for patients with cancer^{6,8}. Only a few years ago, intensive care unit (ICU) mortality of critically ill cancer patients was unacceptably high, especially in those requiring invasive mechanical ventilation. Meanwhile, evidence-based intensive care unit admission criteria, general improvements in the management of organ dysfunctions, advances in the diagnosis and treatment of specific complications, as well as new therapeutic options for cancer and infections have led to a marked improvement of outcomes^{9,10,11,13}. The available data suggest that ICU survivors regain favorable quality-of-life, return to a state in which the continuation of anticancer therapy is feasible, and that their long-term survival as well as their hematologic and oncologic outcome may not be different from cancer patients to the ICU cannot be justified anymore^{20,21}. The acute respiratory failure (ARF) depicts by far the most common reason for an ICU admission in these patients, followed by septic complications and other partially cancer-specific conditions, emergencies and their management. Aim of this

descriptive retrospective study is to covers specific aspects of nonsurgical cancer patients who, admitted to the ICU in AL-Wahda hospital in Derna city.

Patients and Methods

Study Participants

Hundred critically ill cancer patients who took part in the study, were admitted to ICU unite in AL-Wahda hospital in Derna city. The data were collected from cases in the period from December 2019 to November 2022 (from archive files).

Socio-Demographic Data

The data were cases in the period from December 2019 to November 2022 from archive files.

Data Analysis

Data analysis was performed using SPSS software version 20. Descriptive statistics, including percentage, mean, range, and standard deviations, were calculated for all variables.

Ethical Consideration

Researchers are worked as part time in Al-Wahda hospital as a qualify nurses. From their job experiences, they felt upset about ICU critically ill cancer patients who, admitted for palliative management and then discharged to their homes. The main reason for their discharged was absent of cancer center in Derna city. From that reason the researcher felt interested to search about ICU cancer ill patients and their palliative managements in Derna city.

Research Limitations

When we planning this study, we estimated the sample size, based on 1-year data collection, however, the overall number during our study were significantly lower than expected. The reason for this is likely to be multifactorial and have not been subject of robust research. The main causes for that reason are based on the lack of cancer centers in Derna city.

Results

	No	%
Age (years)	·	
<50	28	28.0
50-70	39	39.0
>70	33	33.0
Educational level		
Low	60	60.0
Medium	29	29.0
High	11	11.0
Sex		
Male	48	48.0
Female	52	52.0
Physical activity		
Low	62	62.0
Moderate	37	37.0
High	1	1.00
Smoking or alcohol		
Yes	47	47.0
No	53	53.0
Family history of cancer		
Yes	1	1.0
No	99	99.0

The study included one hundred patients were admitted to ICU unit from 19 December 2019 to November 2022. Most of patients age was 50-70 years (39%) followed by >70 years (33%) and <50 years (28%). The majority of cancer patients had low education level (60%). However, few patients had high level of education

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(11%). More than half of patients (52%) were females and (48%) were males. Most of patients had low physical activity (60%). 47% of patients were smoker. However, 1% had family history of cancer (Table 1). Most of cancer patients were from Derna city the other were from city around Derna (Figure 1).



Figure 1. Residence of cancer patients.



Figure 2. Gender.



Figure 3. Educational level.



Figure 4. Physical activity.



Figure 5. Habit of smoking or alcohol.



Figure 6. Family history of cancer.

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No	%			
52	100			
3	5.8			
49	94.2			
16	30.8			
36	69.2			
	No 52 3 49 16 36			

Table 2. Female gynecological status.

All of female patients (100%) were practice breastfeeding and the majority of them breastfeed for more than 6 months (94.2%). Moreover, most of included female were in postmenopausal (Table 2).

Table 3. Cancer type.				
	No	%		
Lung	16	16.0		
Breast	14	14.0		
Colon	14	14.0		
Ovarian	2	2.0		
Cervical	1	1.0		
Colon and rectal	6	6.0		
Lung + laryngeal	1	1.0		
Rectal	1	1.0		
Bladder	4	4.0		
Kidney	3	3.0		
Liver	3	3.0		
Leukemia	4	4.0		
Pancreatic	2	2.0		
Thyroid	3	3.0		
Thyroid + laryngeal	3	3.0		
Prostate	5	5.0		
Bronchyemic	1	1.0		
Laryngeal	1	1.0		
Nasopharyngeal	2	2.0		
Uterine	4	4.0		
Esophageal	2	2.0		
Brain	2	2.0		
Stomach	3	3.0		
Renal cell	1	1.0		

High number of patients (16%) have lung cancer, (14%) have breast cancer, (14%) colon cancer, (6%) colon and rectal, (5%) prostate and other as show in Table (3).

Table 4. Palliative management in ICU.				
	No	%		
IV	60	60.0		
Orally, IM and IV	35	35.0		
Orally and IV	4	4.0		
IM and IV	1	1.0		

During ICU admission 60% of patients were manage by only IV drug. There were 35% manage by orally, IM and IV drugs and 4% by orally and IV and only one by IM and IV.

Discussion

Cancers are a group of diseases associated with abnormal growth of cells. Without any check, the disease may keep on progressing and leads to death^{12,14,15}. This is a descriptive retrospective study of 100 critically

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ill cancer patients who admitted to ICU unite in AL-Wahda hospital in Derna city. We collected from cases in the period from 1/10/2019 until 30/10/2022 (from archive files). Most of patients age was 50-70 years (39%), followed by >70 years (33%) and <50 years (28%). The majority of cancer patients had low education level (60%). However, few patients had high level of education (11%). More than half of patients (52%) were females and (48%) were males. Most of patients had low physical activity (60%). 47% of patients were smoker. However, 1% had family history of cancer (Table 1). Most of cancer patients were from Derna city the other were from city around Derna (Figure 1). All of female patients (100%) were practice breastfeeding and the majority of them breastfeed for more than 6 months (94.2%). Moreover, most of included female were in postmenopausal (Table 2).

However, high number of patients (16%) have lung cancer, (14%) have breast cancer, (14%) colon cancer, (6%) Colon and rectal, (5%), prostate and other as show in table (3). During ICU admission 60% of patients were manage by only IV drug. There were 35% manage by orally, IM and IV drugs and 4% by orally and IV. Only one by IM and IV. The current study has reported different cancer patient prevalence rates depending on the proportion of the target population exposed to morbidity and mortality in the future.

Conclusions

Cancers are a group of diseases associated with abnormal growth of cells. Without any check, the disease may keep on progressing ultimately leads to pre-mature death. Screening is known to help reduce mortality for cancers of the breast, colon, rectum, cervix, prostate, and lung (among current or former heavy smokers).

Specific Recommendations

- \checkmark More research has to be done about ICU critically ill cancer patients in the future.
- ✓ The government should be provided specialist cancer centers.
- ✓ The health ministry has to provide specialist centers for psychological support and professional health care staff professional.

Declarations

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Research Content: The research content of manuscript is original and has not been published elsewhere.

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