

ORIGINAL RESEARCH

Management of Carcinoma Breast Cases During Covid 19 Pandemic in GMC Jammu-A Retrospective Data Analysis

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ABSTRACT

Introduction: Breast cancer is a leading cause of cancer mortality among women second only to lung carcinoma. There has been substantial progress over the years and decline in mortality is due to early diagnosis and intervention. Growing knowledge regarding breast carcinoma biology has had a greater impact on its management. SARS CoV-2 COVID-19 outbreak had a significant effect on the existing health care services. This pandemic posed multiple challenges in care and management of non-COVID diseases including breast cancer management. **Methods:** The present study is retrospective data analysis of patients suffering from carcinoma breast reporting to the Government Medical College and Hospital, Jammu from March 2020 to August 2022 and type of management offered to them. This was compared with data from January 2018 to December 2019. 372 patients in the age group of 20-80 years of either sex reported in 2020-2022 and 710 patients in the age group of 20-80 years of either sex reported during 2018-2019. **Result:** During 2020-2022, most of the patients (n= 346) presented with advanced breast cancer and underwent neo-adjuvant therapy. 26 patients underwent modified radical mastectomy followed by adjuvant chemotherapy. 157 patients were lost to follow up. As against the previous years where the number of patients who underwent modified radical mastectomy were n= 67(2018), n= 73(2019) and number of patients who underwent neoadjuvant therapy were n= 253 (2018) and n= 317 (2019). **Conclusion:** Due to COVID – 19 pandemic, there was drastic decrease in carcinoma breast patients reporting to tertiary health care centre. Whosoever reported were in advanced stage of the disease leading to poor prognosis. Furthermore, large number of patients were lost to follow up. Healthcare policy needs to be redefined for non-COVID surgical diseases management including cancer patients.

Key words: Carcinoma breast, COVID-19, modified radical mastectomy, neo adjuvant therapy.

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INTRODUCTION

Breast cancer is a leading cause of cancer mortality among women second only to lung carcinoma¹. There were approximately 2.3 million new breast cancer cases and 685,000 breast cancer deaths worldwide in 2020³. Its incidence and mortality varied among countries, with the age-standardized incidence ranging from the highest of 112.3 per 100,000 population in Belgium to the lowest of 35.8 per 100,000 population in Iran, and the age-standardized mortality from the highest of 41.0 per 100,000 population in Fiji to the lowest of 6.4 per 100,000 population in South Korea⁸. As there are few signs and symptoms early on, early detection is an important strategy to improve outcomes¹⁵. COVID-19, caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), was declared as pandemic by the World Health Organization (WHO) on the 11th of March 2020, leading to some form of lockdown across almost all countries of the world⁹. The coronavirus disease 2019 (COVID-19) pandemic disrupted breast cancer control through short-term declines in screening and delays in diagnosis and treatment². In order to curtail the pandemic, the governments adopted extensive management protocol. Most of the available health care resources were re-allocated to treat COVID-19- positive patients, generating a competition with other health care needs, including cancer¹³. All elective and semi-elective procedures, as well as select urgent cases, were postponed in order to preserve resources and protect patients and staff from SARS-CoV-2 exposure¹⁰. Surgical patients were segregated into those requiring immediate lifesaving procedures and others whose surgical management could be delayed. The need to minimize use of operating room resources requires selectively deferring surgery and triaging patients for use of an initial alternative therapy whenever possible. Delays of surgery up to 8 weeks post chemotherapy do not adversely affect breast cancer outcomes¹². There were multiple challenges in care of breast cancer patients. These patients lost advantage of the survival benefit had they presented earlier. Early reports on patients with cancer and COVID-19 have suggested a high mortality rate compared with the general population⁶. Cancer related mortality resulted not only from the disease itself but acute COVID-19 infection and from factors related to the breakdown of the healthcare system. Our institution remained a high volume centre for management of breast cancer in the pre COVID-19 era. The present study was intended to assess the overall impact on management of cancer breast in the only available tertiary care centre in this part of the country.

MATERIAL AND METHODS

This retrospective data analysis study was conducted in the Post graduate Department of Surgery, Government Medical College Jammu, where we collected the data of the patients suffering from carcinoma breast reporting to the hospital from March 2020 to August 2022. There were 372 patients involved in the study, in the age group of 20 to 80 years of either sex of lower, middle and high socioeconomic status. Most of the patients present with lumps of long duration, noticed accidentally, in emergency rooms as Out Patient Departments were closed. After the preliminary investigations, the staging was done by TNM staging system and the appropriate therapy regimen offered to the patients. The data was compared with previous records of 2018 and 2019.

OBSERVATIONS AND RESULTS

372 patients of breast cancer reported to GMC Jammu from the time period of March 2020 to October 2022. 365 were female and 7 were male.

TABLE I.: Patient profile

Patients			Modified radical mastectomy			Neoadjuvant therapy		
			2020	2021	2022	2020	2021	2022
Age(years)	20-40	Male(n)	nil	nil	nil	nil	nil	nil
		Female(n)	2	1	3	41	17	03
	41-80	Male(n)	1	nil	2	01	2	1
		Female(n)	4	8	5	76	117	88
Total (n)			07	09	10	118	136	92

TABLE II: Distribution of socioeconomic status

Patients		Modified radical mastectomy			Neoadjuvant therapy		
		2020	2021	2022	2020	2021	2022
Socioeconomic status (modified Kuppuswamy scale ⁷)	Upper	0	0	0	0	01	5
	Upper middle	0	03	07	40	0	61
	Lower middle	05	02	03	62	32	25
	Upper lower	02	04	0	15	96	1
	lower	0	0	0	01	07	0
Total(n)		07	09	10	118	136	92

TABLE III: Mode of presentation of patients

Patients	Modified radical mastectomy			Neoadjuvant therapy		
	2020	2021	2022	2020	2021	2022
Emergency room	7	9	3	118	129	16
Out-patient department	nil	nil	7	nil	7	76
Total (n)	07	09	10	118	136	92

TABLE IV: Signs /symptoms and duration

Sign/symptoms	Duration	
	>12 months(n)	<12 months(n)
Lump in breast or axilla	248	113
Pain in breast	7	4

TABLE V: Management of the breast cancer patients

Patients	Year		
	2020	2021	2022
Modified radical mastectomy	7	09	10
Neoadjuvant therapy	118	136	92
Radiotherapy	2	3	1
Adjuvant therapy	5	5	9

(Patients who underwent surgical intervention received either adjuvant therapy or radiotherapy or both. 6 of the patients who underwent MRM received radiotherapy and 19 who underwent MRM received adjuvant therapy.)

(MRM: Modified radical mastectomy)

TABLE VI Distribution of patients of carcinoma breast presenting to GMC Jammu since March 2018 to August 2022.

Year	MRM (n)	Neoadjuvant therapy (n)	Total (n)
2018	67	253	320
2019	73	317	390
2020	7	118	125
2021	9	136	145
2022	10	92	102

93.01% (n=346 out of 372) patients received neo adjuvant therapy considering various factors: like late presentation, staging at presentation, general condition of the patient, closure of elective operation theatres, shifting of health resources towards management of COVID - 19 and dealing with its aftermath, loss of follow up of the cancer patients. 6.98% (n= 26 out of 372) underwent surgical intervention followed by adjuvant therapy and or radiotherapy. 42.2% (n=157 out of 372) were lost to follow up. As against the previous years, where the number of patients who underwent modified radical mastectomy were n = 67 (2018), n= 73 (2019); and number of patients who underwent neoadjuvant therapy were n=253 (2018) and n = 317 (2019).

DISCUSSION

This study represents the processes related to breast cancer management during COVID- 19 outbreak. Health care activities were halted to an extent that there was detrimental impact on patients of cancer breast presenting to the centre. There was limited contact with health care professionals during the pandemic as compared to prior time period. Reduced health care utilization was found to be associated with lower health outcomes¹⁴. Citgez B et al.⁵ tried to explain how to prevent the negative effects of the COVID-19 pandemic on the diagnosis and treatment of breast cancer patients. They explained some changes in the approach to breast cancer with tailored therapy being their first goal individually, depending on the healthcare workers, the materials and devices to be used, intensive care unit bed capacity and other resources. Management of breast cancer cases requires the expertise of specialists from different disciplines¹¹. Many patients presented in late stages due to various circumstances. How breast cancer management in each country or healthcare system adapts to the COVID-19 pandemic depends on the local epidemiological situation and implemented outbreak response measures as well as the availability and organisation of resources and specialist manpower. While specific strategies may differ, common themes revolve around patient triage and care prioritisation, minimising hospital visits and adopting telemedicine, and modifying treatment plans to acceptable alternatives⁴.

CONCLUSION

The number of the breast cancer patients presenting to the hospital thinned out as against the pre COVID- 19 period. Various restrictions during the pandemic lead to weakening of the health care services available for cancer patients, of which most services were diverted towards the pandemic management. Cancer patients being more prone to health complications, the morbidity was added to by the treatment interruptions and delays.

Advanced stage disease which if presented earlier in the natural history could provide much better survival benefit with appropriate therapy at the appropriate time.

Various restrictions during the period added to the collapse of the management procedure. Our study revealed that more planning and better resource distribution is required in management of cancer patients especially breast cancer patients; more so in case of similar pandemic or situation in the world or this part of the world.

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