

TREATMENT NAVIGATION PATHWAY AND BARRIERS TO TREATMENT FOR CANCER PATIENTS IN KHYBER PAKHTUNKHWA, PAKISTAN

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ABSTRACT

Objective: To identify the treatment navigation pathway and barriers causing delay in diagnosis and treatment of cancer patients.

Material and Methods: We conducted a hospital based cross-sectional study in a single surgical unit of Khyber Teaching Hospital Peshawar. This study comprising of randomly selected 82 cancer patients, from Jan, 2013 to Jan, 2014. Patients were interviewed regarding their pathway of seeking treatment and various barriers were identified that are causing delay in diagnosis and treatment of cancer patients.

Results: This study included 82 patients, 40% males and 60% females. Average age ranged from 15 to 78 years. Majority of patients were females from rural areas with low socioeconomic and education level. The most common cancer was breast cancer. Major barriers to early diagnosis and treatment were lack of functional health facilities in rural areas, low socioeconomic and education level of the patients and malpractice by unregistered medical practitioners.

Conclusion: Due lack of proper treatment navigation pathway most patients presented with advanced stage of the tumour.

Key Words: Cancer, malpractice, treatment seeking pathway.

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INTRODUCTION

Cancer is the second leading cause of death accounting for 8 million deaths worldwide in 2010¹, with two thirds deaths occurred in less developed areas of the world². It is estimated to rise to 13.2 million in 2030³,

In Pakistan there is no authentic statistics regarding cancer burden in the community and cancer related mortality due to lack of a national cancer registry. Most patients present to hospital in advanced stage due to lack of screening and diagnostic facilities across the country. Presentation at advanced stage makes the cure difficult and leads to high mortality⁴. There are number of factors causing delay in diagnosis or treatment of cancer patients, including financial constrain, lack of

proper referral and cancer treatment centers, inability of the patient to perceive the severity of disease and also negligence of health care providers to pick the disease at early stage.^{5,6}

Early diagnosis and treatment is one of the most effective strategies to combat cancer⁷. It is important to identify the barriers that are causing delay in diagnosis and treatment of cancer patients^{8,9}. Current study is an attempt to navigate the treatment-seeking pathway of the cancer patients and to identify the reasons for delay in seeking the treatment.

MATERIAL AND METHODS

After approval from the hospital ethical committee, this cross-sectional study involving randomly selected 82 cancer patients, was conducted at Surgical Department of Khyber Teaching Hospital, Peshawar from January 2013 to January 2014. A preset questionnaire prepared by study team was asked from every patient followed by a semi-structured interview in Pashto language. Patient excluded from the study were those who were unable to communicate properly because of their critical condition or language barrier. The social and de-

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mographic indicators asked in questionnaire were; Age, Gender, marital status, home address, monthly income and education level. Patients were asked about when the initial symptom appeared, when they first visited the health facility or seek any alternative treatment, when they were diagnosed with cancer, when they started getting treatment and the enabler and barriers in access to treatment.

We used Microsoft Excel for quantitative data interpretation. Continuous data were presented as Mean, Median and standard distribution whereas categorical data was presented as frequency and percentages. Time elapsed was calculated as Mean and Median for delay in every step of cancer treatment seeking pathway.

RESULTS

Out of 82 patients included in this study, the mean age ranged from 15 to 78 years. Majority were married female above 40 years of age. The most common cancer was breast cancer (26.82%) followed by upper gastrointestinal malignancies (23.1%). (Table 1)

About two third of the participants had no idea about carcinogens or cancer treatment. Delay in diagnosis and seeking treatment was most common in uneducated persons who were visiting quacks and Hakims or having belief in alternative systems. The average time from appearance of first signs and symptoms to visiting a health care provider/Hakims/Alternative system was 93 days, however from first consultation to the diagnosis, the average time was 208 days. Patients were divided into 3 groups based on their first consultation. Delay in diagnosis was most common in those who believed in alternative health system i.e 347 days. About half of the patients (52%) visited paramedics/hakims/homeopathic for initial consultation time delay at various steps of treatment seeking pathway is shown in Table 2.

Regarding enablers and barriers to access the treatment, qualitative data analysis showed lack of health facilities in rural areas, malpractice by quacks and hakims, lack of education and awareness about cancer and financial problems were the main barriers to access the treatment. The enablers were living in urban areas, financial support from family and friends and Zakat department, education and awareness about cancer.

DISCUSSION

Knowledge of the cancer treatment-seeking pathway is essential for early diagnosis and treatment of cancer. It reduces morbidity and mortality and cost substantially, when cancer is diagnosed at an early

Table 1: Patient demographics

Demographic variable	Category	Percentage
Age in years	<40	15 (18.2%)
	>40	67(81.7%)
Gender	Male	33(40.2%)
	Female	49(59.7%)
Marital status	Married	58(70.7%)
	Unmarried	19(23.1%)
	Widow	5(6.09%)
Monthly income (PKR)	No income/Dependent	4(3.6%)
	<15,000	17(20.7%)
	15,000-30,000	29(35.36%)
	30,000-50,000	14(17%)
	>50,000	7(8.5%)
Education level	<HSSC	68(82.9%)
	HSSC-Master level	12(14.6%)
	Higher Qualification	2(2.4%)
Residential Status	Rural	67(81.7%)
	Urban	15(18.2%)
Type of cancer	Breast cancer	22(26.82%)
	Upper GI cancer	19(23.1%)
	Colorectal cancer	16(19.5%)
	Prostate cancer	5(6%)
	Liver/Biliary/pancreatic cancer	6(7.3%)
	Thyroid cancer	4(4.8%)
	Soft tissue sarcomas	3(3.6%)
	Others	7(8.5%)

Table 2: Time delay at various steps of treatment seeking pathway

From	To	Average Duration (Days)
Appearance of first sign and symptoms	Initial consultation	93
Initial consultation with Consultants/ General practitioners Paramedics/Hakeem/Homeopathic Alternative system (Spiritual treatment)	Diagnosis	54
		224
		347
		78
Diagnosis	Treatment	78

stage. This study was an attempt to know the cancer treatment-seeking pathway and various barriers and enablers in diagnosis and treatment of cancer patients in Khyber PakhtoonKhwa, Pakistan.

Most of our patients were from rural areas with more than two third has no idea about cancer treatment. Majority were females, as we receive referrals of breast cancer patients. During our study we sort out certain factors that were causing delay in early diagnosis of cancer. In other studies more than two third of patients had no idea about carcinogens and the availability of cancer treatment. Lack of functional health care facilities and low socioeconomic condition of people in rural area were among the important causes for the delay, which was associated with patients presenting with advanced stage of the disease and causing increase in morbidity and mortality.¹²⁻¹⁴

Medical malpractice by paramedics, Hakeems and quacks and belief in alternative health system were other major factors associated with the delay in diagnosis and referral. Most of the upper gastrointestinal cancer patients were receiving PPIs for long time while having clear indications for upper GI endoscopy that was never done. Patients with colorectal malignancies should have a lower GI endoscopy but they were put on irrational medications for long time before the presented to our unit.

Considering the fact that signs and symptoms of many cancers mimic with benign disease,¹⁵ many patients and their care giver took the symptoms trivial and ignoring the severity of underlying pathology.¹⁶ Patients who visited a registered medical practitioner or a consultant at first presentation had early diagnosis and referral while visiting a paramedics, hakeem, quack or alternative health system caused significant diagnostic delay and presentation at advanced stage.

In patients with breast cancer, social inhibition to discuss their problem was associated with presentation at advanced stage.¹⁷ Moreover most of the patient were lacking decision power by their own and discussion of their symptoms with family and friends were found helpful in seeking the treatment.¹⁸

Factors that enabled patients to diagnose early was first visit to a registered medical practitioner or consultant, good education and socioeconomic level, living in urban areas where health facilities are functional and diagnostic services are available.

CONCLUSION

Few patient get timely diagnosis and treatment. The unawareness of people regarding cancer symptoms and lack of a proper treatment navigation pathway,

most patients present at advanced stage.

RECOMMENDATIONS

We recommend that a proper screening program, where possible, and cancer treatment pathway should be implemented to diagnose the disease at early stage and make cure possible and less expensive. There must be a functional health regulatory authority to ban quackery and malpractice. Awareness campaign about common cancers should be launched through media to raise public awareness regarding cancer. Uniform health care services should be provided across the country and rural areas should be prioritized in health policy. Timely financial support should be provided to those patients who can't afford their treatment.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Khan MA:	Concept, Data Collection and Writing
Ahmed M:	Review
Ahmed N:	Data analysis
Aurangzeb M:	Supervision
Zarin M:	Bibliography
Muslim M:	Review
Afridi SS:	Data Collection

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