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PALLIATIVE CARE;

FREQUENCY OF INADEQUATE PAIN ASSESSMENT IN ADVANCED STAGE CANCER PATIENTS RECEIVING PALLIATIVE CARE IN ONCOLOGY DEPARTMENT, MAYO HOSPITAL, LAHORE

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ABSTRACT… Pain is a devastating symptom of advanced cancers. Inadequate assessment and failure in following WHO (World health organization) guidelines for pain management are barriers to pain control in cancer patients. **Objectives:** To determine frequency of inadequate pain assessment leading to inadequate pain control in advanced stage cancer patients receiving palliative care. **Subjects and Methods:** 180 patients, within age 18 to 70 years of both genders, of cancer with stage 3 and 4 disease receiving palliative treatment for pain due to primary or metastatic disease requiring opioid analgesics presenting to inpatient department of Medical Oncology, Mayo Hospital Lahore were selected using non probability, consecutive sampling. **Study Design:** Cross sectional descriptive study. **Setting:** Department of Medical Oncology, Mayo Hospital Lahore. **Period:** 6 months after approval of synopsis from 01.06.2017 to 01.01.2018. The Pain scales used were Numerical Rating Scale- NRS, followed by Visual Analogue Scale-VAS. All patients were evaluated whether or not their pain was assessed by a standard pain scale, the type of malignancy, and the stage of cancer. **Results:** A total of 180 patients with mean age of 49.68 years, with 62.2% females and 37.8% males were selected. Out of these 124 (68.89%) patients received inadequate assessment for their pain intensity as no documented pain scale was being used to assess them. Out of them 50(49.02%) were males and 52 (50.98%) were females. 56 patients (31.11%) were receiving inadequate pain assessment. 17 (30.35%) of them were assessed using VAS and 39 (69.65%) were assessed using NRS. The median pain score was 7.8/10 with the stage 4 patients mainly presenting with a score of >7/10 (69.94%) and stage 3 patients making up majority of pain with <7/10 score (58.82%). **Conclusion:** This study showed that pain is poorly managed in patients with advanced malignancy as majority of patients are not assessed according to standard methods for cancer pain. There is a strong need of physicians' education, development of proper palliative care services and implementation of WHO guidelines to achieve effective pain management for oncology patients.

Key words: Advanced Stage Malignancy, Inadequate Assessment, Pain Scales, NRS, VAS.

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INTRODUCTION

Worldwide, improved healthcare has increased the population lifespan; however, aging, population growth and socioeconomic changes have led to increased incidence of Cancer. According to the (WHO), incidence of cancer was 1688780 new cases in 2017 in U.S.[1] However, the major disease burden is being shared by low or middle income countries, and Pakistan being one, has the age standardized ratio (ASR) for all cancer combined per KCR data estimated around 19.8/100000.[2] While cancer incidence for children is approximately 5 to 6 thousand (survival rates between 20% to 60%[3] According to WHO estimates, 149,000 incident cases and 100,000 cancer deaths occur in male population and 75,095 incident cases and 43,188 cancer deaths in female population of Pakistan, are reported annually.[4] The prevalence of pain in cancer is estimated to be 25% for newly diagnosed, 33% for those undergoing active treatment, 75% for those with advanced disease and approximately 33%

for those with completed treatment with a highest prevalence in certain cancers such as pancreatic (44%) and head and neck cancers (40%).[5]

The causes of under treatment include misconception about treating pain, side effects of analgesics, and lack of financial input needed for opioids and drugs required in management of side effects.[6] Understandably, comprehensive and effective pharmacological and non pharmacological pain management relies on accurate, standardized assessment of pain in both its physical and psychosocial aspects.[7]

The aim of the current study is to highlight the various factors responsible for inadequate pain control in cancer patients receiving palliative care in a resource-poor country like Pakistan. Pain measurement helps in determining the severity and type of pain. It helps in making accurate diagnosis, plan treatment and evaluate effectiveness of treatment. Assessment of pain intensity using pain assessment scale is mandatory to implement WHO analgesic guideline, but unfortunately pain assessment is inadequately done in cancer patients.

There is very limited data in our literature that addresses the inadequate pain control in our society. This study will provide useful statistical data for cancer pain management and also will highlight the paucity in implementation of WHO analgesic guideline.

Data Collection Procedure

Cancer patients, with advanced stage (stage 3, 4) were enrolled from inpatient department of medical oncology, Mayo Hospital Lahore. Informed consent from each patient was taken and ethical considerations were taken care of. Their demographic information like name, age, gender were recorded.180 patients, within age 18 to 70 years of both genders, of cancer with stage 3 and 4 disease receiving palliative treatment for pain due to primary or metastatic disease requiring pain management were selected using non probability, consecutive sampling. The study was conducted over a period of 6 months from 01.06.2017 to 01.01.2018. The Pain scales used were Numerical Rating Scale- NRS, followed by Visual Analogue Scale-VAS. NRS is an 11 point scale for patients' slef reporting of pain. It is divided into No pain (0), mild (1-3), moderate (4-6) and severe (7-10). VAS is a psychometric response scale which is used in a questionnaire to record subjective feeling like pain.[8] All patients were evaluated whether or not their pain was assessed by a standard pain scale, the type of malignancy patient was suffering from, and the stage of cancer on presentation. Variables were recorded in a pre-designed proforma. Descriptive statistics of SPSS 20 were used for statistical analysis.

RESULTS

A total of 180 patients of advanced malignancy with complaint of pain from both genders were selected. Patients had gastrointestinal (26.78%), breast (25%), gynaecological (16.07%), hepatobilliary (16.07%), head and neck (7.14%), lung (3.57%), prostate (1.78%) and other (1.78%) malignancies in stage 3 or 4. 51 (28.33%) patients were in stage 3 and 129 (71.67%) were in stage 4. The most common type of malignancy among the adequately assessed was gastrointestinal (26.78%) followed closely by breast carcinoma (25%) and hepatobilliary carcinoma (16.07%).Age of the patients ranged from 18-70 years with mean age of 49.68±13.65 years. Out of them 112 (62.2%) were females and 68 (37.8%) were males. (Table-I)

Adequacy of pain assessment was evaluated. Out of 180 patients, 56 (31.11%) patients were adequately assessed for their pain intensity by using one of the two scales i.e. NRS and VAS. 17 (30.35%) of them were assessed using VAS and 39 (69.65%) were assessed using NRS. The patients who were assessed had their median pain score of 7.8/10. Among them 39(69.64%) had pain score of >7/10, and 17(30.35%) had pain score of <7/10. Pain score of <7, was seen mainly in Stage 3 patients, 10 (58.82%), with few being in stage 4, 7(41.17%) (Table-II).

DISCUSSION

There is very limited data in our literature that addresses the inadequate pain assessment in cancer patients in our society.

Patient Characteristics		Frequency	Percentage
Gender	Females	112	62.20%
	Males	68	37.80%
Disease Stage	Stage 3	51	28.33%
	Stage 4	129	71.67%
Type of Malignancy Among the Assessed	Gastrointestinal	15	26.78%
	Breast	14	25%
	Gynaecological	9	16.07%
	Hepatobilliary Cancers	9	16.07%
	Head and Neck	4	7.14%
	Lung	2	3.57%
	Prostate	1	1.78%
	Miscellaneous	1	1.78%

Table-I. Demographic and clinical features of patients in the study (N=180)

Pain Scales Used	Total	56	100%
	NRS	39	69.65%
	VAS	17	30.35%
Pain Assessment	Total	180	100%
	Adequate	56	31.11%
	Inadequate	124	68.89%
Pain Score	Total	56	100%
	>7	39	69.64%
	<7	17	30.35%
Scoring <7	With Stage 3	10	58.82%
	With Stage 4	7	41.17%

Table-II. Frequency of pain among cancer patients

This study will provide useful statistical data regarding clinical implementation of scales of pain for improved pain management.

There are a number of studies conducted in West regarding inadequacy of pain assessment and hence inadequate pain management in cancer patients.[9] In a study conducted at Tuscany, Italy it was noted that at hospital admission, less than half of examined records (40.3 %) reported pain-related items, and only 8.1 % reported how it was treated.[10] A literature review by Ramune Jacobsen et al, showed that inadequate pain assessment has been reported as one of the main barriers to cancer pain management by 20-80 percent of health care providers, with majority of physicians not evaluating the type of pain and not using instruments to measure pain intensity.[11] During hospitalization, only 39.6 % of the records reported the use of scales for measuring pain intensity. Also, European Pain in Cancer (EPIC) survey conducted in 12 countries showed that 27% of patients said their doctor does not always ask them about their pain and only one in three patients (33%) recalled having their pain assessed on a pain scale.[12,13] Another study by Chih-Yi Sun et al. found that only 7.9% of the patients had documentation of their pain and evidence of reassessment.[14] A study by Jeba J et al. showed that inadequate pain assessment is attributed as a cause of poor pain control in 86.8%patients.[15]

These results are very much consistent with the ones in our study with some differences due to the variation in clinical set up, lack of validated translation of pain scales and the educational status of the patients. There are many scales designed to assess pain intensity, more comprehensive instruments, and tools specific to neuropathic pain and those developed to observe patient behaviors for those who are nonverbal or cognitively impaired.[16] But unfortunately adequate pain assessment and measurement of pain are often lacking in clinical settings.[17]

Extensive literature has supported attention to pain as an institutional priority for oncology settings with established quality improvement efforts devoted to pain.[18] The experience of pain in cancer is widely accepted as a major threat to quality of life, and the relief of pain has emerged as a priority in oncology care.[19] With such a high burden of this under treated distressing symptom, cancer pain should be anticipated and responded to early in its course rather than only in crisis once it is severe.[20] Extensive literature has supported attention to pain as an institutional priority for oncology settings with established quality improvement efforts devoted to pain.[21] The experience of pain in cancer is widely accepted as a major threat to quality of life, and the relief of pain has emerged as a priority in oncology care.[22]

CONCLUSION

This study showed that pain is poorly managed in patients with advanced malignancy as the majority of patients remain inadequately assessed for cancer pain. There is a strong need of physicians' education, development of proper palliative care services and implementation of WHO guidelines to achieve effective pain management for oncology patients.

REFERENCES

1. Ripamonti CI, D. Santini D, Maranzano E, Berti M, Roila F. **Management of cancer pain: ESMO clinical practice guidelines.** Ann Oncol 2012; 23 (7): 139-154.
2. Aziza S, Shamvil AM, Haroon H. **Development of palliative-care services in a developing country: Pakistan.** Journal of Pediatric Hematology/Oncology 2011; 33: 62–63.
3. Kumar S, Shaikh AJ, Khalid S, Masood N. **Influence of patient's perceptions, beliefs and knowledge about cancer on treatment decision making in Pakistan.** Asian Pacific J Cancer Prev 201; 11: 251-255.
4. Sankaranarayanan R, Ramadas K, Qiao Y. **Managing the changing burden of cancer in Asia.** BMC Medicine 2014; 12(3).
5. Paice JA, Ferrell B. **The management of cancer pain CA:** A Cancer Journal for Clinicians 2011; 61(3): 157–182.
6. Iqbal MS, Khan MZ, Faruqui ZS. **Contralateral limb weakness after intrathecal chemical neurolysis for cancer pain.** Anaesth Pain & Intensive Care 2010; 14(2):109-111.
7. Hawker GA, Mian S, Kendzerska T, French M. **Measures of adult pain: Visual analog scale for pain (VAS Pain), Numeric rating scale for pain (NRS Pain), McGill pain questionnaire (MPQ), Short-Form McGill pain questionnaire (SF-MPQ), Chronic pain grade scale (CPGS), Short Form-36 bodily pain scale (SF-36 BPS), and measure of intermittent and constant osteoarthritis pain (ICOAP).** Arthritis Care Res (Hoboken). 2011 Nov; 63 Suppl 11:S240-52. doi: 10.1002/acr.20543.
8. Fisch MJ, Lee J, Weiss M, Wagner LI, Chang VT, Cella D, et al. **Prospective, observational study of pain and analgesic prescribing in medical oncology outpatients with breast, colorectal, lung, or prostate cancer.** J Clin Oncol. 2012; 30(16):1980-8.
9. Lucenteforte E, Collini F, Simonetti M, Messeri A, Caprilli S, Rasero L, et al. **Assessing pain in hospital in-patients: A cross-sectional study in Tuscany, Italy.** Intern Emerg Med 2012; 7(5):477-482.
10. Shute C. **The challenges of cancer pain assessment and management.** Ulster Med J 2013; 82(1):40-42.
11. Heather Hawksley. **Pain Management in Cancer Care: Overcoming Barriers to Improve the Management of Chronic Pain.** Available from http://www.cancernurse.eu/documents/EONSSupplementPainManagement.pdf.Bottom of Form
12. De Conno F, Neal C, Foubert J, Filbet M, Colett B, Breivik H, et al. **European pain in cancer (EPIC) survey: A report. London: Medical Imprint; 2007.** Available online from: http://www.paineurope.com/fileadmin/user_upload/Issues/EPIC_Survey/EPIC_Report_Final.pdf.Last accessed Nov 2012.
13. Sun VC, Borneman T, Ferrell B, Piper B, Koczywas M, Choi K. **Overcoming barriers to cancer pain management: an institutional change model.** J Pain Symptom Manage. 2007; 34(4):359-69.
14. Jeba J, George R, Thangakunam B, Christopher DJ. **Pain assessment and analgesic prescription for cancer patients in a medical ward: The influence of an educational intervention.** Natl Med J India 2009; 22(4):177-80.
15. Borneman T, Koczywas M, Sun V, Piper BF, Smith-Idell C, Laroya B et al. **Effectiveness of a clinical intervention to eliminate barriers to pain and fatigue management in oncology.** J Palliat Med 2011; 14(2): 197–205.
16. Borneman T, Koczywas M, Sun V, Piper BF, Uman G, Ferrell B. **Reducing Patient Barriers to Pain and Fatigue Management J Pain Symptom Manage** 2010;

39(3): 486–501.

17. Campbell V. **The challenges of cancer pain assessment and management.** Ulster Med J 2011; 80(2):104-106.

18. Vargas-Schaffer G. **Is the WHO analgesic ladder still valid? Twenty-four years of experience.** Can Fam Physician 2010; 56(6):514-517.

19. Jacobsen R, Sjøgren P, Møldrup C, Christrup L. **Physician-related barriers to cancer pain management with opioid analgesics:** A systematic review. J Opioid Manag. 2007; 3(4):207-14.

20. Jamshed A, Syed AA, Shah MA, Jamshed S. **Improving cancer care in Pakistan.** South Asian J Cancer 2013; 2:36-7.

21. Zhu Y, Song G, Liu D, Zhang X, Liu K, Zang A, et al. **Multicenter Clinical Study for Evaluation of Efficacy and Safety of Transdermal Fentanyl Matrix Patch in Treatment of Moderate to Severe Cancer Pain in 474 Chinese Cancer Patients.** Chin J Cancer Res. 2011; 23(4): 317–322.

22. Leung L. **From ladder to platform: A new concept for pain management.** J Prim Health Care. 2012; 4(3):254-8.

The true sign of intelligence is not knowledge, but imagination.

– Albert Einstein –

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Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
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