Palliative care among liver cancer Patients at Mansoura University Hospitals

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Abstract: Background: liver cancer is one of the most serious diseases that affect the quality of life of patients and contract with patients' well-being and their activity of daily living**. The aim** of study was toevaluate and assess the palliative care needs to liver cancer patients at Mansoura University Hospital. **Design:** The study was carried out using a quasi- experimental design. **Setting:** It was conducted at tropical medical departments at Mansoura university hospital. **Sample:** A purposive sample consisted of hundred patients in all stages of liver cancer disease. **Results**: There was statistically significant relations between liver cancer patients and activity of daily living and spiritual needs, also, there was significant relations between liver cancer patients and role activities. **Conclusion:** The nursing assessment to liver cancer patients problems and their unmet needs in palliative care were identified after the investigation which was made at tropical unit at Mansoura university hospital., the results revealed also that the most problems of liver cancer patients were poor social issues (40%), poor spiritual issues (37%), good autonomy (41%), poor informational needs (40%). **Recommendation**: In view of the study findings, it is recommended to implement the developed nursing intervention program and its booklet in similar settings, with more efforts from nurses to improve the palliative care needs to liver cancer patients and provide a lot of palliative care settings to better administration of palliative care to liver cancer patients.
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Key words: liver cancer, palliative care. social care

1. Introduction

Liver cancer rates was increasing since the early 1980s in the U.S. In 2016, the American Cancer Society estimates that 39,230 new cases and 27,170 deaths will occur in the U.S. during this year, Liver cancer is the fifth major cause of deaths in the U.S, **(American Cancer Society,2016)**

Recent reports demonstrate that the incidence of HCC has increased sharply in the last 5–10 year s with high incidence in Egypt, HCC is less prevalent in the Middle East compared to high incidence in countries **(Salim et al., 2009**). The incidence varies significantly among different districts and countries. **(Lehman et al., 2008**)

In Egypt, liver cancer forms 11.75% of the malignancies of all digestive organs and 1.68% of the total malignancies. HCC comprises 70.48% of all liver tumors among Egyptians. HCC has a raising occurrence in Egypt, that perhaps the consequences of hepatitis B virus (HBV) and HCV as first danger elements. **(Gomaa, 2014)**

Through first hepatocellular carcinoma, liver cancer (HCC) accounts a basic textile partial type, representing from70%to85% of a status of first hepatocellular carcinoma. The second most popular kind of hepatocellular carcinoma is the intrahepatic cholangiocarcinoma (ICC), and this happening has been rising. All of ICC and HCC are a not matching illness on the one hand cellular morphology and clinical results. **(Jemal et al., 2o11 & de Jong, et al., 2011))**

Palliative care is an important part of care for many patients with HCC. It focuses on alleviating pain and other cancer-related symptoms, improving quality of life during treatment, and providing support to cope with feelings related to a cancer diagnosis. **(Mokdad et al., 2016)**

The Globally Health Agency (WHO) has already confirmed a significance of soothing protect utilities in progressing countries, a reality which is linked to therapy isn't globally ready to most Middle Eastern countries where cancer; so that most cancer sick search medical caring only when the sickness is in a progressed level, after treatment but causing acute ache. **(Silbermann, 2010)**

Significance of the study

The happens averages of cancer in Egypt from 2008–2011 depended on data of the National Cancer Record Program of Egypt with rated occurrence of the illness up to 2050, Applying the pattern over successive years for the projected populations appeared a raise in the number of incident status from about 115, 000 sick in 2013 to more than 331, 000 in 2050. **(Amal et al., 2014)**

Patients with advanced liver cancer have many physical and psychosocial needs, which may begin so long before their death. in these cases, treatments with palliative care includes treatments to control cancer

and improving the quality of life making their lives more comfortable. Liver cancer patients have sever symptoms that have been insufficiently addressed, so, early palliative care provided to those patients with their medical interventions can improve outcome and achieve the best type of life for sick and their families. This study describes the current soothing protect among liver cancer sick.

Aim of the Study

The aim of study is toassess patients clinical needs and problems regarding palliative care for liver cancer patients at Mansoura University Hospital.

Research Questions:-

In this study, we will explore patients problems and unmet needs in palliative care.

Study design:

Exploratory descriptive approach used in the study.

Setting:

This study was performed in Tropical Medical Department at Mansoura University hospital (MUH).

2. Subjects

The sample of present study includes a convenient sample of hundred patients from the previously mentioned settings were included. This study was conducted during five months duration from the beginning of January to the end of May 2017. the study was applied in all stages of liver cancer disease.

Tools and Techniques of data collection:

The following tools were used for collection of necessary data and achieving the aim of the study as following:

Three tools were used for data collection as follows:

Tool 1: liver cancer patient assessment questionnaire: that will be developed by the researcher for data collection and it include two parts.

Part1: patient socio demographic data such as name, age, social status, family size, educational level. It includes (5 items).

Part 11: medical data of the patient such as stage of the disease at diagnosis, other health problems, present history, family history and treatments.

Tool 2: The problems and needs in palliative care questionnaire (PNPC):

It was developed by (**Osse et al,2002)**. to support the provision of care tailored to the specific demands of patients, which only can be provided when their needs are clearly identified. it includes140 items classified into13 parts: activity of daily living (7 items), physical needs (18 items), role activities (4 items), financial and administrative needs (5 items), social needs (15 items), psychological needs (15items), spiritual needs (5items), autonomy (9items), informational needs (9items), problems in consultation (3 items), overriding problems in quality of care (9items), concerning the general practitioner (20 items), concerning the specialist (19 items).

Tool 3: palliative Care patient and family satisfaction survey (PCPFSS); this tool was used to ask about the patient feedback about the experience with the palliative care provided and any comments for Palliative care services. It includes (13 items).

Methods

1. Tool I was developed by the researcher after reviewing the related literature and was tested by jury for their validity and reliability.

2- A Pilot study was done to ensure the clarity and applicability of the questionnaire. It was done on ten percent of sample. The participant of this pilot study will not be included in the study sample.

3-Validity:-The study tool was constructed by the researcher based on reviewing of the related literature, and then reviewed by five experts from different departments. Three from (Medical -Surgical Nursing Department)**,** one from **(**Critical Nursing Department) at Mansoura Faculty of Nursing and one from (community and public health department) from Mansoura faculty of medicine. These experts assessed the research tool to ensure the applicability, clarity, completeness, comprehensiveness, and meaningful.

4-Ethical consideration

1- Ethical approval was obtained from research Ethics Committee at the Faculty of Nursing - Mansoura University.

2- An agreement for participation of the subjects was taken verbally before inclusion and after the aim of the study explained to them.

3- The patient had the right to refuse participation in the study at any time.

4-the researcher must ensure the confidentiality of the patients information and used it only for the research purpose.

5-The result was used asa component of the necessary research for master study as well as for future.

Statistical Analysis

Data was computed, tabulated, and statistically analyzed using SPSS version 20 (statistical package of social sciences). The descriptive table represent data in number and percentages. After data collection, it was revised, coded and fed to statistical software IBM SPSS version 20. The given graphs were constructed using Microsoft excel software.

All statistical analysis made with 2-tailed tests and α error of 0.05. $P \leq 0.05$ was considered to be statistically significant.

The following statistical tests were used:

A. Descriptive statistics:

Included frequency and percent to describe the frequency of each category for categorical data.

B. Analysis of categorical data:

Data were analyzed with **SPSS** version 21. The normality of data was first tested with one-sample Kolmogorov-Smirnov test.

Continuous variables were presented as **mean ± SD** (standard deviation).

Qualitative data were described using number and percent. Association between categorical variables was tested using Chi-square tests. When more than 25% of the cells have expected count less than 5, Monte Carlo exact test was used.

C- **Correlation analysis:** correlation to test nature and strength of relation between two variables. Spearman-correlation co efficient (rho) is expressed as the Pearson co efficient, sign co efficient indicates nature of relation (+ / -) while the value designates the relation strength, Weak correlation < 0.25, intermediate between 0.25 - 0.74 and strong correlation between 0.75- 0.99.

3. Results:

Table (1): Percentage distribution of socio demographic characteristics of liver cancer patients.

Table (1) shows that (65%) of patients were male. In relation to age (47%) of the patients, their age ranges from40-50 years. In relation to marital status, (78%) of the studied patients were married. The table also reveals that (56%) of the patients could not read or write. In relation to occupation, (51%) of the studied patients had work.

Table (1): Socio-demographic characteristics of liver cancer patients

Socio-demographic characteristics	Liver cancer patients at MUH (n=100)	
	No.	%
Sex:		
• Male	65	65.0
• Female	35	35.0
Age (years):		
• 20-<30	2	2.0
• 30-<40	18	18.0
• 40-<50	47	47.0
• 50-<60	33	33.0
Marital status:		
• Married	78	78.0
• Divorced	5	5.0
• Widow	14	14.0
• Single	3	3.0
Educational level:		
• Can't read and write	56	56.0
• Primary education	27	27.0
• Secondary education	9	9.0
• University education	8	8.0
Occupation:		
• Didn't Work	49	49.0
• Work	51	51.0
➢ Employee	14	27.45
➢ Worker	7	13.73
➢ Craftsman	12	23.53
➢ Farmer	12	23.53
➢ Other*	5	9.8
➢ Housewife	1	1.96

Table (2): percentage distribution of medical data of liver cancer patients

This table represents that (55%) of the studied patients discovered liver cancer disease as a result of finding symptoms, (89%) of patients had not undergone a liver biopsy, (86%) of patients were not informed about the result of liver biopsy and (77%) of them had not undergone last operations. This table also reveal that (51%) of the studied patients were suffering from HBV, HCV, (44%) of patients had a history of liver cirrhosis, while (5%) had history of bilhariziasis.

In relation to blood transfusion (58%) of them had not got blood transfusion, (94%) were not addicted and (59%) were not cigarette smoking.

Table (2): Percentage distribution of past medical data of liver cancer patients

Medical data	Liver cancer patients at MUH (n=100)	
	No.	%
Suffering from chronic diseases:		
• Hepatitis B or C	51	51.0
• Liver cirrhosis	44	44.0
• Bilhariasis	5	5.0
Have a history of operations:		
• No	77	77.0
• Yes	23	23.0
Getting any blood transfusion:		
• No	58	58.0
• Yes	42	42.0
Addicted:		
• No	94	94.0
• Yes	6	6.0
Cigarette smoking:		
• No	59	59.0
• Yes	41	41.0
No of cigarette per day:		
Median (Min.-Max.)	20 (1-40)	

Table (3): percentage distribution of liver cancer patients present history

Table (3) shows that (60%) of the patients knew the nature of the disease, (57%) of them knew the stage of the disease.

In relation to types of treatments, most of the studied patient (45%) were receiving trans arterial chemo embolization therapy.

Table (3): percentage distribution of the present history of liver cancer patients

Present history	Liver cancer patients at MUH (n=100)	
	No.	%
Knowing the nature of disease:		
• No	40	40.0
• Yes	60	60.0
Knowing the stage of disease:		
• No	57	57.0
• Yes	43	43.0
Length of time since diagnosis:		
• Less than one month	29	29.0
• More than two months	71	71.0
Type of treatments decided by doctor:		
• Radiofrequency	23	23.0
• Microwave	15	15.0
• Transarterial chemoembolization	45	45.0
• Alcohol injection	10	10.0
• Radiotherapy	2	2.0
• Chemotherapy	1	1.0
• Others	4	4.0

Table (4): percentage distribution regarding family history of liver cancer patients

This table reveals that (91%) of the studied patients had negative family history about liver cancer disease, about (66.7%) of them were 1st degree relativity.

Table (4): Family history of liver cancer patients

Items	Liver cancer patients at MUH (n=100)	
	No.	%
Family history of liver cancer		
• No	91	91.0
• Yes	9	9.0
➢ Type (Liver cancer)	9	100.0
❖ Degree of relativity:		
• 1st degree relativity	6	66.7
• 2nd degree relativity	3	33.3
Way to discover liver cancer disease:		
• As a result of finding symptoms	55	55.0
• Accidentally when you are screening	45	45.0
Time to discover liver cancer disease (month):		
Median (min.-max.)	8 (1-96)	
The doctor take a liver biopsy to determine the stage:		
• No	89	89.0
• Yes	11	11.0
The doctor inform about the result of liver biopsy:		
• No	86	86.0
• Yes	14	14.0

Part II: The problems and needs of liver cancer patients

Table (5): Activity of daily living of liver cancer patients.

Table (5) shows that (67%) of liver cancer patients had difficulties in body care, washing, dressing, or use of the toilet. (75%) of them had difficulties in rising, walking, climbing stairs. (71%) had difficulties in preparing meals, cooking and shopping. (72%) had difficulties in doing light housework, while (53%) had not difficulties in personal transportation and (56%) of patients had not difficulties in doing heavy housework.

Table (5): Percentage distribution of activity of daily living of liver cancer patients

Activity of daily living items	Liver cancer patients at MUH (n=100)					
	No		Somewhat		Yes	
	No.	%	No.	%	No.	%
• Difficulties in body care, washing, dressing, or use of the toilet	8	8.0	25	25.0	67	67.0
• Difficulties in rising, walking, climbing stairs	6	6.0	19	19.0	75	75.0
Difficulties in preparing meals, or cooking	13	13.0	16	16.0	71	71.0
• Difficulties in shopping	15	15.0	14	14.0	71	71.0
• Difficulties in personal transportation	53	53.0	5	5.0	42	42.0
• Difficulties in doing light housework	16	16.0	12	12.0	72	72.0
• Difficulties in doing heavy housework	56	56.0	10	10.0	34	34.0
Total score mean±SD	9.65±3.22					

Figure (1): Percentage distribution total activity of daily living among Liver cancer patients

Figure (1) shows that (51%) of the liver cancer patients had fair of activity of daily living, while (16%) had poor.

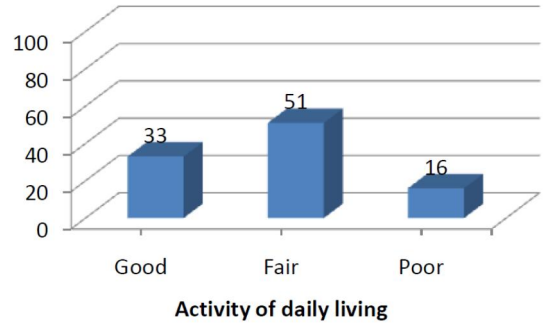

Figure (1): Total activity of daily living among liver cancer patients

Table (6): Percentage distribution Physical problems of liver cancer patients

Table (6) illustrates that patients complained of pain, fatigue, nausea or vomiting, incontinence, lack of appetite or change in taste, prickling or numbness sensation and swelling of arms, legs or abdomen (64%, 59%, 44%, 38%, 43%, 42%, 63%) respectively.

Table (6): Physical problems of liver cancer patients

Physical symptoms	Liver cancer patients at MUH (n=100)					
	No		Somewhat		Yes	
	No.	%	No.	%	No.	%
• Pain	3	3.0	33	33.0	64	64.0
• Difficulty in concentration	14	14.0	47	47.0	39	39.0
• Fatigue	12	12.0	29	29.0	59	59.0
• Sleeping problems	17	17.0	44	44.0	39	39.0
• Nausea or vomiting	22	22.0	34	34.0	44	44.0
• Constipation or diarrhea	20	20.0	49	49.0	31	31.0
• Incontinence	28	28.0	34	34.0	38	38.0
• Mouth problems or swallowing problems	27	27.0	42	42.0	31	31.0
• Lack of appetite or change in taste	21	21.0	36	36.0	43	43.0
• Shortness of breath	20	20.0	41	41.0	39	39.0
• Cough	25	25.0	38	38.0	37	37.0
• Itching	27	27.0	43	43.0	30	30.0
• Loss of hair	31	31.0	37	37.0	32	32.0
• Impaired vision or hearing	25	25.0	40	40.0	35	35.0
• Sexual dysfunction	26	26.0	37	37.0	37	37.0
• Prickling or numbness sensation	21	21.0	37	37.0	42	42.0
• Swelling of arms, legs, or abdomen	8	8.0	29	29.0	63	63.0
• Nightly sweating or hot flushes	18	18.0	49	49.0	33	33.0
Total score mean±SD	21.71±7.20					

This table also shows that the studied patients complained somewhat of (difficulty in concentration, sleeping problems, constipation or diarrhea, mouth problems or swallowing problems, shortness of breath, cough, itching, loss of hair, impaired vision or hearing, sexual dysfunction, nightly sweating or hot flushes) (47%, 44%, 49%, 42%, 41%, 38%, 43%, 37%, 40%, 37%, 49%) respectively.

Figure (2): Total physical symptom /problems among Liver cancer patients

Regarding total physical symptoms of the studied patients, (44%) had moderate symptoms, while (25%) of them complained of sever symptoms.

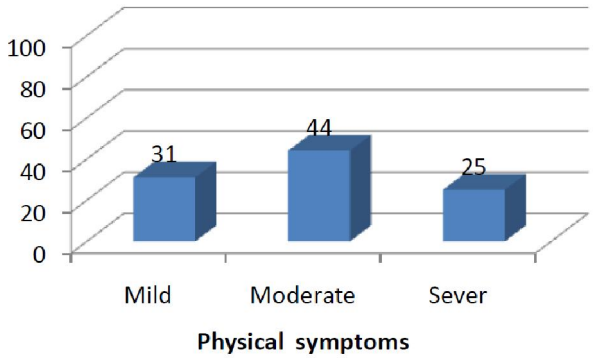

Figure (2): Total physical symptoms/problems among liver cancer patients

4. Discussion:

Liver cancer is one of the most common malignant tumors with a poor prognosis worldwide. While early stage tumors can be treated with curative medical methods such as liver transplantation or surgical resection, these are only suitable for a minority of patients, while advanced stage disease are only suitable for supportive approaches and most are resistant to chemotherapy or radiotherapy. **(Huo et al., 2017)**

In Egypt, there has been a remarkable increase in the proportion of hepatocellular carcinoma (HCC) among chronic liver diseases patients. This high proportion is due to (HCV) infection, hepatitis B virus (HBV) infection, and improvement of the diagnostic tools of HCC as well as the extended survival among patients with cirrhosis. **(Abd-Elsalam et al., 2018).**

Palliative care is an "approach that improves the quality of life of patients and their families meeting troubles associated with disease threatens life, during the prohibition and relief from hardship, the early determination and impeccable estimation and therapy of ache and other troubles, physical, psychosocial and spiritualistic**". (Who, 2011)**

The Native Hospice and Palliative Protect Agency (NHPC) limit palliative protect as a therapy that promotes relief and improves the person's quality of life through the final stage of life. **(Stephen. Conor, 2009)**

HCC disease in the final stage of illness perhaps appear by a group of symptoms linked to not compensatory cirrhosis involving ascites, hemorrhage, environmental hepatic encephalopathy, and edema. Next to this symptoms, stomach ache has been reported as the most familiar symptom (about 2to3rd of sick), that grew to expand swelling huge and was described as dull visceral ache. **(Kumar et al 2008)**

In our study and beginning with socio demographic characteristics and medical history of studied patients in relation to gender, age, marital status, educational status and their work. It was showed that about 65% of patients were male, 47% of them ranged from 40-50 years old. In relation to marital status 78% of the studied patients were married. 56% of the patients were illiterate. And about half of them had jobs.

He et al., 2017 in his study about marital status and survival in patients with primary liver cancer mentioned that married patients enjoyed overall and cause-specific survival outcomes compared with patients who were divorced/separated, widowed, and single. The survival benefit associated with marriage still persisted even after adjusted for known confounders. Widowed individuals were at greater risk of overall and cancer specific mortality compared to other groups.

Regarding the medical data of the studied patients it was represented that 55% of the studied patients discovered liver cancer disease as a result of finding symptoms, 89% of them had not undergone a liver biopsy, 86% of patients were not informed about the result of liver biopsy and 77% of them had not undergone last operations. It was also revealed that about half of them were suffering from HBV, HCV, approximately 44% of those patients had a history of liver cirrhosis, while only 5% had history of bilhariziasis. In relation to blood transfusion 58% of them didn't receive blood transfusion, the largest proportion 94% were not addicted and two thirds were not cigarette smoking.

A study titled world - wide relative contribution of hepatitis B and C viruses in hepatocellular carcinoma assumed that at least 60% of HCC are attributable to either HBV or HCV in most countries, particularly those with a medium or lower HDI classification. However, the relative contribution of HBV and HCV to HCC varies substantially by country. **(de Martel et al., 2015)**

Two thirds of our patients knew the nature of their disease, 57% of them knew its stage. And less than the half were receiving Trans-Arterial Chemo Embolization (TACE) therapy. TACE using lipoidol - based regimens, including the administration of an anticancer - in - oil emulsion followed by embolic agents, is widely used in the treatment of hepatocellular carcinoma (HCC) **(Lencioni et al., 2016).** Intra-arterial therapies are based on the fact that most of hepatic neoplasms preferentially derive their blood supply from an arterial source (mainly hepatic artery), while rest of the liver gets its blood supply mainly from the portal vein. This allows for selective therapy delivery to hepatic tumors and protects against ischemic necrosis of the rest of the liver. **(Kumar et al., 2016)**

Conclusion

The findings of the present study can be concluded that:.

1-The nursing assessment to liver cancer patients problems and their unmet needs in palliative care were identified after the investigation which was made at tropical unit at Mansoura university hospital.

2-the results revealed that the most problems of liver cancer patients were poor social issues (40%), poor spiritual issues (37 %), good autonomy (41%), poor informational needs (40%).

Recommendation

In view of the study findings, it is recommended to implement the developed nursing intervention program and its booklet in similar settings, with more efforts from nurses to improve the palliative care

needs to liver cancer patients and provide a lot of palliative care settings to better administration of palliative care to liver cancer patients.

References

1. Abd-Elsalam, S., Elwan, N., Soliman, H., Ziada, D., Elkhalawany, W., Salama, M.,... & Khalil, H. S. (2018). Epidemiology of liver cancer in Nile delta over a decade: A single-center study. South Asian journal of cancer, 7(1), 24.
2. Amal S. Ibrahim, Hussein M. Khaled, Nabiel NH Mikhail, Hoda Baraka, and, Hossam Kamel(2014) Cancer incidence in Egypt: a closer look to registry results, " In press. Volume 2014, Article ID 437971, 18 pages http://dx.doi.org/10.1155/2014/43797
3. De Martel, C., Maucort‐Boulch, D., Plummer, M., & Franceschi, S. (2015). World‐wide relative contribution of hepatitis B and C viruses in hepatocellular carcinoma. Hepatology, 62(4), 1190-1200.
4. El-Serag, 2011 H.B (2011) Hepatocellular carcinoma N. Engl. J. Med., 365 (2011), pp. 1118–1127.
5. Gomaa AI, Hashim MS, Waked I (2014) Comparing staging systems for predicting prognosis and survival in patients with hepatocellular carcinoma in Egypt. PLoS One 2014; 9:e90929.
6. He, X. K., Lin, Z. H., Qian, Y., Xia, D., Jin, P., & Sun, L. M. (2017). Marital status and survival in patients with primary liver cancer. Oncotarget, 8(39), 64954.
7. Huo, X., Han, S., Wu, G., Latchoumanin, O., Zhou, G., Hebbard, L.,... & Qiao, L. (2017). Dysregulated long noncoding RNAs (lncRNAs) in hepatocellular carcinoma: implications for tumorigenesis, disease progression, and liver cancer stem cells. Molecular cancer, 16(1), 165.
8. Lehman EM, Soliman AS, Ismail K, Hablas A, Seifeldin IA, Ramadan M, et al (2008) Patterns of hepatocellular carcinoma incidence in Egypt from a population-based cancer registry. Hepatol Res 2008;38:465-73.
9. Lencioni, R., de Baere, T., Soulen, M. C., Rilling, W. S., & Geschwind, J. F. H. (2016). Lipiodoltransarterial chemoembolization for hepatocellular carcinoma: a systematic review of efficacy and safety data. Hepatology, 64(1), 106-116.
10. Salim EI, Moore MA, Al-Lawati JA, Al-Sayyad J, Bazawir -- A, Bener A, et al (2009) Cancer epidemiology and control in the arab world - past, present and future. Asian Pac J Cancer Prev 2009;10:3-16.
11. Silbermann M (2010) Endeavors to improve palliative care services for patients with cancer in Middle Eastern countries. ASCO Education Book. 2010:217–221.
12. Kumar R., Saraswat M.K., Sharma B.C., Sakhuja P., Sarin S.K (2008) Characteristics of hepatocellular carcinoma in India: a retrospective analysis of 191 Stephen R. Connor. (2009) Hospice and Palliative Care: The Essential Guide, Edition2, illustrated, revised Publisher Taylor & Francis, 2009 ISBN 0203886151, 9780203886151 Pp.262 pages cases. QJM. 2008 Jun;101:479–485.
13. World Health Organization (2011) WHO Definition of Palliative Care.2011. http://www.who.int/cancer/palliative/definition/en/. Accessed 14 Nov 2016.

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