

**Original Article**

**Pilot study of the quality of life of Arab cancer patients treated in Lebanon**

**Marie Ghosn<sup>1</sup>, Cherine Bazzane<sup>2</sup>, Elie El Rassy<sup>3</sup>, Ziad Bakouny<sup>3</sup> .**

1: *University of Pennsylvania, USA*

2: *Clemenceau Medical Center affiliated to Johns Hopkins International, Lebanon*

3: *Department of Hematology-Oncology, Faculty of Medicine, Saint Joseph University, Lebanon*

**Corresponding Author**

Elie Rassy MD MSc,  
Hematology-Oncology Department,  
Hotel Dieu de France University  
Hospital,  
Ashrafieh, Beirut 6000, Lebanon.  
Tel: +9611615300.  
Email: [elie.rassy@hotmail.com](mailto:elie.rassy@hotmail.com)

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The announcement of a cancer diagnosis is one of the most distressing moments in the course of the disease, despite all the advances in the field of oncology [1]. Sharing information about the disease, the treatment and its complications allows the patient to take part in the decision-making process and to reduce the social and psychological distress caused by the disease [2]. The available literature on Arab populations has shown that a high proportion of patients is not properly informed about the cancer diagnosis [2]. This renders the elaboration of treatment goals more difficult in metastatic patients for which the goals of the management plan are limited to symptom palliation [3]. As such, quality of life (QoL) is at the center of every treatment decision, especially since it has been shown to predict survival [4–6]. Unfortunately, we still lack data concerning this matter in the Arab countries. In order to evaluate the QoL of cancer patients for whom management plans had been elaborated with their oncologists, several cancer-specific instruments have been developed to assess the impact of specific cancers and treatments on QoL. Therefore, the aim of this study was to describe the QoL of Arab cancer patients treated in Lebanon. In this paper, we report the pilot study of the questionnaire elaborated to assess our goals.

Patients were randomly recruited from the metastatic cancer patients who had presented to the one-day medical unit at Clemenceau Medical Center affiliated to Johns Hopkins International. It is a tertiary care center located in Lebanon and is commonly visited for medical tourism thus treats Lebanese and International patients. Eligible patients were all adult cancer patients receiving palliative chemotherapy for metastatic cancers. Patients with end stage cancer or diagnosed psychiatric disorders were excluded. All participants signed an informed consent form to participate in the survey. During chemotherapy sessions, all participants were interviewed by the same study investigator (M.G.). Each patient could choose an Arabic or English version of the questionnaire which included five categories: cancer/treatment information, pain numeric scale, the PHQ9 screening tool, the EORTC-QLQC30 comprising global health status, functional scale and patient's symptom scale and the MASCC tool for nausea and emesis. The functional scale, symptom scale and global health status scale of the EORTC-QLQC30 were compared using the Mann-Whitney U test between: patients with a numeric pain scale at 0 and those  $\geq 1$ , patients who had received 6 cycles of chemotherapy or less and those who had received at least 7 cycles of chemotherapy, and those who had presented at least one instance of nausea/vomiting and those who had not. The relationship between the diagnosis of depression (defined as a PHQ9 score  $\geq 5$ ) and patients' numeric pain scale ( $=0$  or  $\geq 1$ ), the number of cycles of chemotherapy undergone by the patient or the presence/absence of nausea/vomiting were evaluated using Fischer's exact test. SPSS Statistics version 20.0 (IBM Corporation, New York, USA) was used for statistical analysis. All tests were two-tailed and the threshold for statistical significance was  $\alpha = 0.05$ .

Our study included 22 Arab patients (among which 15 Lebanese) had a median age of 61 years (range 37-85 years). Gastrointestinal cancers were the most prevalent malignancies (11 cases), followed by lung and genitourinary cancers (4 cases each) and breast cancers (3 cases) (Table 1). Twelve patients had had at least six cycles of chemotherapy and seven had two or less cycles. The performance status of our patients was well preserved (Eastern Cooperative Oncology Group Performance Status of 0-1) in all patients. None of the eligible patients refused to participate in the questionnaire. The questions were clear and well understood by most patients and did not require the intervention of the investigator (M.G.). Table 1 details the score for each patient's questionnaire.

The functional scale ( $p=0.243$ ), symptom scale ( $p=0.949$ ) and global health status scale ( $p=0.797$ ) of the EORTC-QLQC30 questionnaire were not found to significantly differ between

patients with a numeric pain scale at 0 and those  $\geq 1$ . Furthermore, no statistically significant relationship was found between the diagnosis of major depression (based on the PHQ-9 questionnaire) and the presence or absence of pain ( $p=1.00$ ).

The functional scale ( $p=0.235$ ), symptom scale ( $p=0.262$ ) and global health status scale ( $p=0.512$ ) of the EORTC-QLQC30 questionnaire were not found to significantly differ between patients who had undergone  $\leq 6$  or  $\geq 7$  chemotherapy cycles. Furthermore, no statistically significant relationship was found between the diagnosis of major depression (based on the PHQ-9 questionnaire) and the number of chemotherapy cycles ( $p=0.648$ ).

The functional scale ( $p=0.858$ ), symptom scale ( $p=0.154$ ) and global health status scale ( $p=1.00$ ) of the EORTC-QLQC30 questionnaire were not found to significantly differ between

**Table 1: Summary of the patients characteristics and scores for each of the questionnaires**

Patient	Age	Nationality	Primary tumor	No. of chemotherapy cycles	PHQ9 score	MAT score	Pain score	Global health status*	Functional scale*	Symptoms scale*	Language of the questionnaire
1	67	Lebanese	Breast	9	3	0	5	58.3	61	35.4	English
2	57	Lebanese	Lung	1	5	0	0	25	89.3	35.2	English
3	73	Iraqian	GIT	8	0	0	2	66.7	95.3	0	Arabic
4	85	Lebanese	GNU	6	0	0	0	83.3	94	1.2	English
5	40	Saudi Arabian	GIT	2	2	4	0	83.3	67.3	35.8	Arabic
6	77	Lebanese	Lung	5	4	0	0	58.3	92	12.3	Arabic
7	60	Iraqian	GIT	3	3	30	3	50	96	38.3	Arabic
8	50	Iraqian	GIT	8	3	0	2	50	100	19.1	Arabic
9	74	Lebanese	GIT	6	9	0	7	58.3	55.3	31.5	Arabic
10	54	Lebanese	Breast	2	0	0	0	75	100	0	Arabic
11	73	Kuwaiti	Lung	8	8	2	0	75	83.3	32.7	Arabic
12	49	Lebanese	Breast	6	11	9	0	41.7	61.3	56.2	Arabic
13	61	Lebanese	GIT	1	7	0	3	66.7	80	24.7	Arabic
14	74	Iraqian	GNU	8	0	0	0	100	89.3	1.2	English
15	61	Lebanese	GNU	8	4	0	2	91.7	92.3	21.6	Arabic
16	66	Lebanese	GIT	5	7	0	0	33.3	31	38.9	Arabic
17	59	Lebanese	GNU	10	6	0	10	16.7	92	22.8	Arabic
18	62	Lebanese	GIT	16	0	3	4	66.7	100	8	Arabic
19	57	Lebanese	Lung	2	4	0	0	66.7	84	18.5	Arabic
20	61	Lebanese	GIT	1	3	0	5	91.7	94.7	21.6	Arabic
21	37	Lebanese	GIT	2	1	1	0	83.3	98.7	1.8	Arabic
22	72	Armanian	GIT	8	1	0	1	91.7	100	7.4	Arabic

MAT: MASCC anti-emesis score GIT: Gastrointestinal GNU: Genitourinary

\*The EORTC-QLQC30 comprises:

Global health status: a high score represents a high QoL,

Functional scale: a high score represents a high / healthy level of functioning

Patient's symptom scale: a high score for a symptom scale / item represents a high level of symptomatology / problems

patients who had presented at least one instance of nausea/vomiting and those who had not. Furthermore, no statistically significant relationship was found between the diagnosis of major depression (based on the PHQ-9 questionnaire) and the occurrence of nausea/vomiting ( $p= 1.00$ ).

This paper only constitutes a pilot study for a larger one that would use the same methodology to describe the QoL of Arab cancer patients treated in Lebanon. This pilot study showed that the questionnaire was clear and well understood by most patients which allow its use in the larger study. The present results did not show any significant correlations probably due to the small number of patients included and the selection bias of recruiting patients from the one-day medical unit only. We believe that the larger study, taking into consideration these limitations, would provide insight into major elements that would affect the management of cancer patients during medical tourism in the Arab countries.

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