Psychological Stresses among cancer patients in Hadramout (Yemen)

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Abstract:

Patient with cancer experiences arrange of challenges and psychological stresses, these may include coping with their health and future. Because of this importance, the investigators performed this study. Its objectives are to identify the psychological stress in cancer's patient in Hadhramout. To achieve this objective was used test of psychological stress with sample of the study consisted of (58) patients with cancers attended the National Oncology Centre/ Mukalla Hadhramout and National Oncology Center in "Saiyon" in the period from 29/08/2012 to 25/02/2013 were enrolled.

The research concluded that there is a Higher level of psychological stress among cancer patients in Hadhramout which is linked to lack of a specialized oncological service in the Valley, prolonged duration of cancer, reproductive age group and marital status causing poor psychological and social adjustment.

The present study is a descriptive study.

The investigators recommended to develop medical, psychological and social care services for cancer's patients in Hadhramout in general and particularly in the valley.

The Ministry of Health in Yemen is urged to take its role in supporting, treating and rehabilitation of cancer's patients and that these things to be a part of the strategic policies of Ministry of Health. Finally investigators promoted to further researches related to cancers in Hadhramout and its relationship with other local demographic variables in Hadhramout.

Key words: Psychological stresses; Cancer Patient; Hadhramout.

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الضغوط النفسية عند مرضى السرطان في حضرموت حضرموت

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ملخص البحث:

يترتب على خبرات مرض السرطان تحديات وضغوط لنفسية، وهذه قد تشمل التعامل مع صحتهم ومواجهة المستقبل، ولهذه الأهمية قمنا بتطبيق الدراسة الحالية والتي تهدف الى التعرف على الضغوط النفسية التي يعاني منها مرضى السرطان في حضرموت. ولتحقيق هذا الهدف استعملت اختبارات الضغوط النفسية مع عينة الدراسة المكونة من (58) مريضا بالسرطان الذين حضروا الى المركز الوطني للأورام في المكلا حضرموت والمركز الوطني للأورام في سيئون وذلك في الفترة من 20/ 8/ 2012م.

الدراسة الحالية هي دراسة وصفية اعتمدت على المعايير الاحصائية الاساسية .

خلص البحث إلى أن هناك مستوى عالي من الضغط النفسي يعاني منه مرضى السرطان في حضرموت مرتبط بعدم وجود خدمة متخصصة لعلاج الأورام في الوادي خاصة كذلك مدة المعاناة الطويلة من السرطان وفئة العمر الإنجابي وضعف الحالة الاجتماعية والزوجية ادت إلى ضعف التكيف النفسي والاجتماعي.

وفي ختام الدراسة أوصى الباحثون بضرورة تطوير خدمات الرعلية الطبية والنفسية والاجتماعية لمرضى السرطان في حضرموت بشكل عام و الوادي خاصة. الأمر الذي يتطلب من وزارة الصحة في اليمن القيام بدورها في دعم وعلاج وتأهيل مرضى السرطان، وأن تكون هذه الأمور جزءا من السياسات الاستراتيجية لوزارة الصحة، وحث الباحثون على إجراء المزيد من البحوث المتعلقة بالسرطان في حضرموت وعلاقتها مع المتغيرات الديموغرافية المحلية الأخرى في حضرموت.

كلمات مفتاحية: الضغوط النفسية ؛ مرضى السرطان .حضرموت

Introduction:

Stress is a complex process including environmental and psychosocial factors that initiate a cascade of information processing in both the peripheral nervous system and the central nervous system (CNS).[1] Stress can be acute (short-lived) or chronic (repetitive or occurring over an extended period of time) [2] . Under chronic stress conditions, the body remains in a constant state of 'overdrive', with deleterious downstream effects on regulation of stress response systems, as well as many organ systems [3]. For example chronic stress leads to increased neural or neuroendocrine responses, leading to "allostactic load" and adverse effects on the body [4]. Furthermore, dopamine (DA) levels are increased in the brain during acute stress [5]. However, under chronic stress, DA levels are low as a consequence of its decreased release [6].

Stress can be caused by daily responsibilities and routine events, as well as by more unusual events, such as a trauma or illness in oneself or a close family member. When people feel that they are unable to manage or control changes caused by cancer or normal life activities, they are in distress. The main key to understand the responses of the stresses does not depend on the nature of the pressures and sources, but depends on how an individual responds to these stresses. Some people collapse, while others strive to deal with the stresses successfully, this depends on collapse point of each person which differ from one person to another, nature and sources of the stresses, and the structure of the individual's personality [7]

Hundreds of studies [8], have measured how stress impacts our immune systems and fights disease. At Ohio State University, the PhD researcher Dr. Ron Glaser, found that students under pressure had slower-healing wounds and took longer to produce immune system cells that kill invading organisms. Renowned M.D researcher Dr. Dean Ornish, who has spent 20 years examining the effects of stress on the body, found that stress-reduction techniques could actually help reverse heart disease.

Dr. Barry Spiegel, a leader in the field of psychosomatic medicine, found that metastatic breast cancer patients lived longer when they participated in support groups. The psychological impact of cancer is clear showed with psychological tension, which lasts for a long time in patients with a rate ranging between 20-66%. The current study is aimed to identify the psychological stresses in cancer patients in Hadramout.

Patients And Material:

This is descriptive study, test of psychological stress was used containing 33 paragraphs with reliability coefficient of 0.82. Data was collected by interview with closed questionnaire and analyzed by using Statistical Package for Social Science (SPSS version 20).

All the avaiable patients who attended in the National Oncology Centre/ Mukalla Hadhramout and National Oncology Center in "Saiyon" during period of data collection from 29/08/2012 to 25/02/2013 were enrolled in the study.

Results:

The total patients enrolled in this study are 58 patients. Most of patients are females (70.7%) at age group of 46-70 years (46.6%) and living in Sayion (56.9%) Table No1, an illiteracy is a characteristic in a higher percentage of participants (41.4%) Table No2, Most of patients are married (62.1%) Table No3 and housewives (51.7%) Table No 4, most of studied cancer patients are new patients have cancer during a year (59.9 %) Table No 5 and breast cancer is the commonest one (29.3%) Table No 6.

Cancer patients living on valley "Sayion" suffer from forgetfulness, fear, shortness of breath and lack of self-satisfaction more than patients living on the coast" Mukalla" (P value = 004) Table No 7. Women with cancer find difficulty in making their decisions more than men. (P value = 003). Patients from 20 to 45 years old fear that will not have children. (P value = 004) while illiterate cancer patients had higher level of pressure compared with literate patient. (P value = 001)

Patients with a duration of the disease between 3 to 5 years feel sadness and depressed compared with patients who suffering from cancer less than three years (P value = 004).

Married cancer patients expressed more anxiety, tension, withdrawal, loss of self-confidence, security and stability more than unmarried patients. (P value = 001)

Housewives expressed loss of self-confidence, tension and sexual problems (libido) more than other patients. (P value = 004)

Patients of breast and ovarian cancers or lymphomas have sexual problems and financial difficulties more than patients with other cancers. (P value = 002).

 $\label{thm:characteristics} \textbf{Table 1: Demographic characteristics of cancer patients Hadhramout.}$

Characteristics	Frequency	%	
Residence:			
Mukalla	21	36.2	
Coast			
Sayion	33	56.9	
Valley			
Non -stable	04	06.9	
Total	58	100.0	
Sex:			
Female	41	70.7	
Male	17	29.3	
Total	58	100.0	
Age:			
< 20	10	17.2	
20-45	17	29.3	
46-70	27	46.6	
>70	04	06.9	
Total	58	100.0	

Table 2: Educational Level of the studied cancer patients. Hadhramout

Educational Level	Frequency	%	
Primary school	20	34.5	
Secondary	06	10.3	
University	02	03.4	
Illiterate	24	41.4	
Undetermined	06	10.4	
Total	58	100.0	

Table 3: Marital status of the studies cancer patient

Social status	Frequency	%	
Married	36	62.1	
Divorced	05	08.6	
Unmarried	11	19.0	
Widow	04	06.9	
Undetermined	02	03.4	
Total	58	100.0	

Table 4: Occupation of cancer patients

Occupation	Frequency	%	
Housewives	30	51.7	
Employed	09	15.5	
Students	07	12.1	
Unemployed	05	08.6	
Undetermined	07	12.1	
Total	58	100.0	

Table 5: Duration of cancer in cancer patients, Hadhramout

Duration of cancer	Frequency	%	
< 1	33	56.9	
1-2	05	08.6	
3-5	07	12.1	
> 5	03	05.2	
Unknown	10	17.2	
Total	58	100.0	

Table 6: Frequency and percentage of the patients according to types of cancer

Kind of cancer	Frequency (n)	Percent	
Breast	17	29.3	
Ovary	04	06.9	
Pharynx	03	05.2	
lung	02	03.4	
Pancreas	02	03.4	
Kidney	01	01.7	
Blood	02	03.4	
lymph	05	08.6	
Prostate	01	01.7	
Myeloma	02	03.4	
Liver	01	01.7	
undetermined	18	31.3	
Total	58	100.0	

Table 7 : Statistical significant of psychological stresses in cancer patients Hadhramout.

Psychological stresses	Factors	No	%	P value
Forgetfulness, Fear Shortness of breathing Lack of self-confidence	Valley	33	56.9	0.004*
	Cost	21	36.2	0.249
Difficult in making decision	Female	41	70.7	0.003*
Difficult in making decision	Male	17	29.3	0.434
Fear that they will not have	20-45 years	17	29.3	0.004*
children	More than 46	31	53.4	0.379
Dwassings	Illiterates	24	41.4	0.001*
Pressures	Literates	28	48.3	0.194
	Duration < 1	33	56.9	0.327
Sadnass and danuassian	1-2	05	08.6	0.142
Sadness and depression	3-5	07	12.1	0.004*
	> 5	03	05.2	0.107
Anxiety	Married	36	62.1	0.001*
Tension	Unmarried	11	18.9	0.416
Withdrawal	Divorcee	05	08.6	0.092
Loos of confidence and security	Widow	04	06.9	0.504
Sexual problems	Housewives	30	51.7	0.004*
Loos of self confidence	Employed	09	15.5	0232
Tension	Students	07	12.1	0.644
Telision	Unemployed	05	08.6	0.115
	Breast cancer	17	29.3	0.002*
Financial problems	Ovary	04	06.9	0.002*
Sexual problems	Lymphomas	05	08.6	0.003*
	Other cancers	14	24.1	0.416

^{*}Significant level P<0.05

Discussion:

Cancer Patients living in valley suffering from forgetfulness ,fear , shortness of breath and lack of self-satisfaction more than patients who live on the coast.

Cancer patients in the valley suffered from many problems such as lack of specialized doctors and anti-cancer medications, so they need to travel to Mukalla (far away from the valley four hundreds kilometers), adding financial, social and psychological burden.

Generally, the diagnosis of cancer and its aftermath undoubtedly lead to major changes in life in a significant proportion of people.[9]

After cancer's diagnosis, the patient is worry about the return of the disease and the fear of medical tests ,despite the fact that anxiety is a normal response of Stressful Life Events .However, some cases of anxiety affects social relationships or professional behavior related to health, though the problems associated with of concern is the physical alertness and sleep disturbance, lack of concentration, poor capacity for decision-making, irritability, anger, and avoid situations that cause pain and distress.[10]

Women find difficulty in making their own decisions compared to men . This result agreed with study of Feldnk Lam & fielding in 2003 who tried to identi-

fy the meaning of women breast cancer in Eastern societies (China), they found that "the diagnostic procedures characterized by shock and disbelief with the fear of death, followed by great difficulty in making a quick decision about treatment, fear of the changing in the external appearance of the body, which seems interesting problems with those who tried to hide their disease to protect themselves from social ostracism, shame and stigma of the disease. [11]

Another study conducted by (Jotzmann and Lewis Gottesman & Lewi. 1982) compared between three groups of women, the number of women in each group 22 Lady, the first group represented a sample of patients with cancerous tumors, while the second group represented a sample of patients who had surgery, and the third group was of misfits, the results were as follows patients who have cancerous tumors suffer from helplessness and depression, compared to the other two clusters. [12]

Although the women found difficulty in making their own decision in this study , but they are respected, appreciated by people who know them, enjoy talks with others, they have a good relationship with them and they can take responsibility at home. This result is in agreement with the study of Chelf .G and others (2000), who found that 85% of women patients with tumors (n = 132) believe that just talk about their emotions, listen to their experience with cancerous tumors disease, gives them optimism and hope to continue their lives.[13]

Cancer Patients who have a (20 to 45) years old expressed fear of not having children. In the study of Sinha and Nejan (1993) done on 125 cancer patients, aged between 30 to 45 years; result of the study showed that high emotional difficulties in patients with cancerous tumors is an effective indicator of the death anxiety they have.]14 [Schover,2000 noted that cancer treatments cause to interruption or pause in the menstrual cycle in women, this event is a source of anxiety and stress.[15]

Illiterates patient has a higher level of pressures compare with literates patient, this result agree with study of Roberts, C.S. & Cox ,C.E., (1994) who noted, that illiterates patient who received lack of social support from friends, family and husband, and dependence from others caused them to increase stress.[16]

Patients who have cancer from 3 to 5 years feel sadness and depressed, compared with patients who suffering from cancer less than three years, there is no doubt that the length of suffering period with cancer creates a kind of desperation and no healing then

the patient feels more fears , anxiety and sadness. This result was in agreement with the study of Watson and others (1999) toward patients with breast cancers (n = 578), show that most targeted women who fear to relapse or death during the first five years after diagnosis are elderly, with feeling of helplessness and sadness, also found that major depression reduces their chances of survival still alive.[17]

Married patients expressed more anxiety, tension ,withdrawal ,loss of self-confidence, security and stability more than married patients, in the Arab societies ,where this large number of family members and the diversity of the social role of the various financial and spending on family exposing them to a lot of psychological stress in their life.

Housewives expressed loss of self-confidence, tension and sexual problems more than other patients, most of housewives spends their time inside the house for the husband ,kids and other members of family care as well as interests running the house and follow up, family requirements and take responsibility in all things in the house and rarely spend time for entertainment outside the home, compared with women who works outside the house. We believe these reasons make them suffer a lot of stress, which affect negatively on aspects of self-confidence and sexual problems.

Patients of breast, ovaries and lymph cancers suffered of sexual problems and financial difficulties more than patients with other cancers.

In a study by researcher Steginja and others (1998) intended to find out the difficulties faced by women with breast cancer in Australia, sample (n = 245) patients with breast cancer, results of study showed that the fear of a return of the disease is the top concerns of living and it greatly influences in emotional function as well as depression, and it appeared that physical condition is a significant impact on the quality of life and psychological adjustment and it was found that depression leads to disable sexual activity and sexual desire and adversely affected in quality of life.[18]

Another study of Kissane and others (1998), toward women with breast cancer, the study showed that women with breast cancer early suffer of depression ,anxiety symptoms, stress and tension, this factors adversely affect in social and recreational function of the patient.[19] These studies are relatively in agreement with the obtained results particularly in women with breast cancer.

Living with cancer can lead to psychological pres-

sures involve: body image, sexual problems, difficulties in personal relationships, anxiety, fear, and fear of the return of cancer. [20]

This result is consistent with the outcome of the study reached by (Maguire) that cancer patients suffer from psychiatric disorders, as anxiety and depressive symptoms and low self-esteem, which may be due to loss of social roles and health deterioration.[22]. Also (Rose) reached to that a cancer patient injected in to marital relations, sex low level performance and activity.

Ell,K.1996 which reached to, the family with cancer patient live in a severe crisis, and the effect on the marital and family relationships, which lead to fundamental changes in social roles in the family[21].

Roberts and Cox (1994) studied the effect of receiving social support from friends, family and husband on psychological adjustment in a sample of (135) women with diagnosis of breast cancer, and shows that there is a correlation between high stress with a lack of social and psychological support.[16].

All previous studies confirm the existence of a mutual effect between stresses and psychological adjustment.

Conclusion:

Higher level of psychological stress among cancer patients in Hadhramout is attributed to lack of a specialized oncological service in the Valley, prolonged duration of cancer, reproductive age group and marital status causing poor psychological adjustment.

Recommendations:

Based on our the results, we recommend the following in future research:

- Recommend development of medical, psychological and social care services for cancer's patients in Hadhramout in general and particularly in Hadhramout valley.
- The need to urge the Ministry of Health in Yemen to take its role in supporting, treating and rehabilitating cancer's patients and to consider it as a part of their strategic policies.
- 3. Provide individual and group psychotherapy for cancer patients to help them to overcome their stress, anxiety, fear and depression.
- 4. Building and providing guidance program for chronic patients who are between (25-45), married and housewives.
- 5. Provide spiritual, psychological and material

- support for family cancer patient. To deal positively with their patients in all stages of the disease to accept their negative feelings and encourage them to express their feelings.
- Further researches related to cancers in Hadhramout and its relationship with other local demographic variables should be conducted.

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Reference:

- Sapolsky RM. Why Zebras Don't Get Ulcers: A Guide to Stress, Stress-Related Diseases, and Coping. WH Freeman and Co; NY, USA:1998.
- 2. Chrousos G. Stress and disorders of the stress system. Nat. Rev. Pub Med. Endocrinal. 2009; (5):374–381.
- McEwen B. Stress and health: relevance to Persian gulf veterans?; Presented at: International Society for Traumatic Stress Studies Annual Meeting 1998; Washington, DC, USA.21–23 November 1998.
- Schmidt C, Kraft K. β-endorphin and catecholamine concentrations during chronic and acute stress in intensive care patients. Eur. J. Med. Res. 1996;1(11):528–532.
- 5. Puglisi-Allegra S, Imperato A, Angelucci L, et al. Acute stress induces time-dependent responses in dopamine mesolimbic system. Brain Res. 1991;554(1–2):217–222.
- 6. Imperato A, Angelucci L, Casolini P, et al. Repeated stressful experiences differently affect limbic dopamine release during and following stress. Brain Res. 1992;577(2):194–199.
- 7. Peto, R. Boreham, J. et al., UK and USA breast cancer death down by 25% in year 2000 at ages 20-69 years. Lancet.2000 .355:1822 .
- 8. Zabora, J. et al., The prevalence of psychological distress by cancer site. Psycho Oncology -; 2001(10)19-28.
- Fobair P, Hoppe RT, Bloom J, Cox R, Varghese A, Spiegel Psychosocial problems among survivors of Hodgkin's disease. J Clinc Oncol. 1986(4): 805–814.
- 10. Breitbart, W.Identifying patients at risk for, and

- treatment of major psychiatric.1995.
- 11. Lam, W. & Fielding, R. The evolving Experience of illness for Chinese Women With Breast cancer: A qualitative Study. Psycho-Oncology Journal. 2003.12:(2):127-140.
- 12. Gottesman, D. & Lewis, M.S. Differences in crisis reactions among cancer and surgery patients .Journal of consulting and clinical psychology.1982.50:(3):381-388.
- 13. Chelf, J.H, Deshler, A.M. etal., Storytelling: A Strategy for living and coping with cancer. Cancer Nursing,2000.23:(1):1-5.
- 14. Sinha, S.P. & Nigan, M., Stress and death anxiety. Indian Journal of Clinical Psychology, 1993.20:(2):78-81.
- 15. Schover, L.R., Psychosocial issues associated with cancer in pregnancy. Semin-Oncol .2000.27:699-703.
- 16. Roberts, C.S. & Cox, C.E., A closer look at social support as a moderator of stress in breast cancer. Health & Social Work.1994,19:(3):157-165.
- 17. Watson, M. Haviland, J.S. et al. Influence of psychological response on survival in breast cancer: a population based on cohort study. Lancet.1999 354:1331¬- 1336.
- 18. Steginga, et al., Psychosocial issues associated with cancer. Semin- Oncol 1998: 1063-1070.
- Kissane, D.W. Clarke, D.M. et al. Psychological morbidity and quality of life in Australian women with early _stage breast cancer a cross _sectional survey. Medical Journal of Australia,1998.169:(4):192-196.
- National Breast Cancer Centre. Clinical practice guide lines for the psychosocial care of adults with cancer, Endorsed April, NHMRC,2003.16.
- Ell, K. Social network, social support and coping with serious illness: The family connection. Social Science and Medicine, 1996. 42(2), 173-183.
- العثمان، وسام أحمد، الأبعاد الاجتماعية لمرض السرطان: .22 دراسة في الانثروبولوجيا الطبية بالتطبيق على المجتمع القطري،كلية الآداب، جامعة القاهرة ،أطروحة دكتوراه . 1995: –151 161.