The Role of Black Seed and Honey in Relieving the Degree of Symptoms Associated of Breast Cancer

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ABSTRACT

This study aimed to determine the effect of black seed and honey on the status of women with breast cancer. This study was conducted at the Department of Oncology in Al-Noor Specialist Hospital and King Abdullah Medical City, Holy Makkah. The sample consisted of fifty-four patients, aged more than 18 to 70 years, and was divided into four groups. All of these groups continued the treatment of chemotherapy and the first group (14 patients) was considered as the control group: the second group (11 patients) was given a daily intake of black seed (0.2 g/kg body weight); the third group (14 patients) was given a daily intake of honey (60 grams); while the fourth group (15 patients) was given both the black seed and honey similar to the second and third intakes for a period of 5 days a week. Also, intakes of black seed, honey, as well as black seed and honey together continued for two weeks after the end of chemotherapy.

The results showed that the degree of pain sensation during chemotherapy was decreased with the intake of either black seed or honey. After two weeks at the end of chemotherapy and dietary treatment, nausea disappeared among 51.85% of all women. During chemotherapy, the percentage of 50% of women experienced vomiting especially between the intakes of honey and the combined black seed and honey groups. Symptoms of diarrhea disappeared after treatment and also after two weeks of treatment, especially among the honey, and a combined black seed and honey groups. The symptom of appetite loss after treatment was decreased and the perception of slight loss of appetite was 88.89% among women. Half of the women had moderate symptoms of fatigue. During sessions of chemotherapy and with intake of black seed and honey and both combined there was a symptom of mild dizziness or completely disappeared in 79.63, 20.37%, respectively. Symptoms of depression disappeared during treatment and also after two weeks of treatment in the three experimental groups. There was a significant degree of anxiety during chemotherapy treatment and also after two weeks in 18.52% of the sample, especially the groups of black seed, or bee honey, or both of them.

The study concluded the importance of the use of complementary and alternative treatment by using natural foods especially black seed and honey for the prevention and protection from cancer or an alleviation of symptoms associated with various cancer treatments.

INTRODUCTION

Cancer is a group of diseases (more than 100 diseases) similar in some characteristics to each other. It has been called Cancer due to the distended blood vessels around the tumor-like clusters of crab and these diseases are caused by cells getting out of control (Debasis and Preuss 2005). Cancer is one of the main problems of public health in the world; it causes the deaths of 7.1 million persons per year in various parts of the world. And it has been predicted that by 2020 there will be 15 million people newly infected with cancer each year (WHO, 2003).

In 2007, the percentage of breast cancer in Saudi Arabia between Saudi men and women were 0.5, 26.6%, respectively compared to the other types of cancer; and the number of Saudi deaths in the same year as a result of cancer tumors generally was 1688 cases (935 males, 753 females) at the rate 6.2% of the total number of deaths in the Kingdom (Ministry of Health, 2007). This is related to the rise in the prevalence of many factors in the Kingdom of Saudi Arabia such as increased life expectancy, following the western style of living which encourages reducing the number of pregnancies, delayed childbearing, as well as the lack of physical activity and dietary habits (Ibrahim et al., 2008).

In addition drug therapy causes severe side effects such as nausea and vomiting, reaching between (12-36) hours after treatment, lesions occur in the mucous membranes lining the mouth, decreased white blood cells which reduces patient's resistance to bacterial infection, as well as a decrease in blood platelets which leads to the occurrence of hemorrhage. Also, there are common effects of chemical drugs including fatigue, weakness and pain throughout the body, weight gain and night sweats, dizziness and a change in the sense of smell and taste, headache, diarrhea or constipation and tingling in the fingers and loss of nerve strength (Mufti, 2007; Cancer Compass.2008).

A study by Alharbi (2008) which included 30 women with breast cancer, age ranged between 25 to 55 years in the Armed Forces Hospital in Riyadh showed a rate of 43.33% of anemic patients (hemoglobin less than 12 grams).

As pointed out by Edris (2009) black seed is the one famous specie well known for its medicinal properties and lack of toxicity. And the seed contains oil products by 30.0% -38.0% in weight, and the composition of this oil is from 97.5 to 99.9% fixed oil and about 0.1 to 2.5% volatile oils (essential). The study indicated to the great effectiveness of primary oil when injected directly into

the tumor in reducing tumor size, inhibition of proliferation of the tumor as well as the delay of death in mice with tumors. This effectiveness was attributed to the components of essential oil thymoquinone (TQ), which represents the main component of primary oil where most of its source comes from black seed. This phenomenon might be due to its effect on inhibition of cancer cells growth as well as its ability to stimulate programmed cell death.

The purpose of the study of Mohamad, et al., (2011) was to evaluate the effectiveness of black seed capsules, rose cedar and vitamin E plant on women with breast cancer. The experiment was conducted on 168 breast cancer patients that had been divided into four sub-groups, each group composed of a total of 42 patients. The first group of them did not receive any treatment except the prescribed standard treatments, while the rest of the groups, in addition to the standard treatment, were treated with either black seed capsules (grams / 8 hours) or rose cedar (1.4 g / 12 hours) or vitamin E (100 mg / 12 hours) for a period of 6 months. The results showed black seed as highly effective, as it brought about an evident improvement in the levels of all biochemical measurements that had been assessed and also the general health situation in breast cancer patients more than rose cedar or vitamin E capsules, which were being treated chemically and radiologically. The study concluded that the use of black seed treatment is complementary with standard chemotherapy, radiation and hormone therapy for patients with breast cancer and may be useful in reducing the recurrence of the disease and improve patient survival rates. Therefore, this study aimed to identify the effect of black seed and honey as to relieving the degree of associated symptoms of those infected with breast cancer.

MATERIALS AND METHODS

This study was conducted during the academic year 1430-1431 H, corresponding to the year 2009 – 2010 A.D. Research sample consisted of fifty-four patients and upon evaluation by the Department of Oncology the infected women were divided randomly into four groups; all groups continued treatment of chemotherapy and the first group (14 patients) was considered as a control group, the second group (11 patients) was given 0.2 grams of black seed/ kg body weight to be divided into three volumes taken after three main meals during the day, and the third group (14 patients) was given 20 grams of Cedar honey before eating at every meal of the three main meals taking 60 grams of honey during the day. While the fourth group (15 patients) was provided with the same treatment of the second and third groups together for a period of 5 days a week. This continued until the end of chemotherapy (four doses of

chemotherapy one of each dose through 21 days) and also after administering chemotherapy for two weeks.

The Edmonton Symptom Assessment System (ESAS) (Chang, et al., 2000) was used and this measuring scale aided in the assessment of nine symptoms common in cancer patients: pain, nausea, vomiting, diarrhea, appetite, fatigue, drowsiness, depression, and anxiety. This scale ranged from zero to 10 depending on the severity of symptoms of the patient and the recorded number corresponds to symptom of pain and the number zero means the absence of symptoms, while number 10 means feeling of severe symptoms. These figures were converted to degrees: zero there are no symptoms, 1 – 3 mild symptoms, 4 – 7 moderate symptoms, 8 – 10 severe symptoms. This had been standard on the experimental groups before treatment, and every week during doses of chemotherapy (12 prescriptions, where a woman was given all 4 doses of chemotherapy, the chemotherapy dose for 21 days), and two weeks after the end of the last dose of chemotherapy. For the control group the measurement was applied for each dose per week during the chemotherapy, and two weeks after the end of the last dose of chemotherapy. The data were analyzed using the General Linear Model of the program (2000) SAS to estimate the mean, standard deviation and variance analysis and appreciation of the significant differences between the averages by Duncan test.

No symptoms									Severe symptoms	
0	1	2	3	4	5	6	7	8	9	10

RESULTS AND DISCUSSION

Table (1) indicated the degree of pain associated with the study sample, the results showed black seed or honey prior to treatment where the degree of pain did not exist in 22.22% of the study sample (54 women), while the degree of pain symptom to a moderate and severe degree at the rate of 35.19, 42.59%, respectively. Evidently, the low degree of pain during chemotherapy with black seed or honey treatment disappeared; whereas symptom of severe pain and mild pain by 100% in each group of black seed and honey. While in both groups of black seed and honey, the symptom of pain disappeared in 6.67% of the sample. The results of the statistical analysis showed lack of significant differences (p <0.20) between all groups. After two weeks of treatment, the pain disappeared in 38.89% of respondents, especially among the sample of honey and black seed, followed by other groups by 78.57, 54.55%, respectively. But after two weeks of resuming chemotherapy in the control group noted moderate and severe degree at the rate of 85.71, 14.29%, respectively.

Table 1. The degree of pain symptom associated with breast cancers

Before Treatment		
Degree	Number	%
None	12	22.22
Moderate symptom	19	35.19
Severe symptom	23	42.51
Total	54	100

During chemotherapy (Average 12 prescriptions)
$X^2=8.5109$ 0.2030   Not significant

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	-	-	-	-	-	-	1	6.67	1	1.86
Mild symptom	12	85.71	11	100	14	100	14	93.33	51	94.44
Moderate symptom	2	14.29	-	-	-	-	-	-	2	3.70
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment
$X^2 = 21.4770$ ** 0.0015

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	6	54.55	11	78.57	4	26.67	21	38.89
Mild symptom	-	-	5	45.45	3	21.43	9	60.00	17	31.48
Moderate symptom	12	75.81	-	-	-	-	2	13.33	14	25.93
Severe symptom	2	14.29	-	-	-	-	-	-	2	3.70
Total	14	100	11	100	14	100	15	100	54	100

The results of statistical analysis chi square (X^2) showed the existence of significant differences between all study samples at a level of probability of less than 0.0015.

The results showed (Table 2) that the degree of symptom for nausea was severe, moderate, mild at the rate of 40.74, 37.04, 22.22% of the study sample, respectively. During chemotherapy and treatment of both black seed and honey nausea decreased by the rate of 9.26% of the sample, and mild symptom of nausea by the rate of 83.33% of the sample group, especially among black seed group, followed by honey. The differences were significant(p <0.0031)among the groups. After two weeks at the end of chemotherapy and treatment nausea disappeared by 51.85% among the total samples, and especially between groups of honey (92.86%).While after two weeks the women sample in the control group suffered again from moderate and severe nausea. The results showed high significant differences (p <0.0002) between all groups.

The results(Table 3)showed the degree of symptom of vomiting with severe, moderate, and mild vomiting among the samples at the rate of 25.93, 38.89, and 27.78%, respectively.While, the symptom of vomiting disappeared among the sample at the rate of 7.4%

during chemotherapy, black seed or honey and in both black seed and honey. No symptom of vomiting up to 50% among the study sample, particularly between the two groups of honey and black seed and honey and black seed taken together. And the differences were statistically significant (P <0.0001)among all groups. A continued improvement in the symptom of vomiting after two weeks by the end of chemotherapy and black seed or honey or in black seed and honey taken together. However, the percentage of 20.37, 1.85% of the study sample had symptoms of moderate degree and severe vomiting. The results of statistical analysis indicated significant differences at the level of probability of less than 0.0006.

The condition of diarrhea symptom improved for the study sample as a result of chemotherapy and black seed and honey; wherein the degree of symptoms of diarrhea was from moderate to mild by 35.18, 37.04% before treatment. But after two weeks of treatment the symptoms of diarrhea disappeared by 72.22, 70.37, respectively. Statistical analysis did not show any significant differences between groups during treatment. It showed significant differences between groups when the probability level was 0.0087 (Table 4).

Table 2. The degree of nausea symptom associated with the study sample

After Treatment		
Degree	**Number**	**%**
Mild symptom	12	22.22
Moderate symptom	20	37.04
Severe symptom	22	40.24
Total	45	100

During chemotherapy (Average 12 prescriptions)
X^2=19.7000   ** 0.0031

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	-	-	-	-	-	-	5	33.33	5	9.36
Mild	11	78.57	11	100	13	92.86	10	66.67	45	83.33
Moderate	3	21.43	-	-	1	7.14	-	-	4	7.41
Total	14	100	11	100	14	100	15	100	45	100

After 2 weeks of treatment
X^2 = 26.6442   ** 0.0002

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	6	54.55	13	92.86	9	60.00	28	51.75
Mild	-	-	5	45.45	1	7.14	5	33.33	11	20.35
Moderate	12	85.71	-	-	-	-	1	6.67	13	24.10
Severe	2	14.29	-	-	-	-	-	-	2	3.70
Total	14	100	11	100	14	100	15	100	54	100

Table 3. The degree of vomiting symptom associated with the study sample

Before Treatment		
Degree	**Number**	**%**
None	4	7.40
Mild symptom	15	27.78
Moderate symptom	21	38.89
Severe symptom	14	25.93
Total	54	100

During chemotherapy (Average 12 prescriptions)
X^2=30.4352   **= 0.0001

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	3	21.43	-	-	12	85.71	12	80.00	27	50.0
Mild symptom	10	71.43	11	100	2	14.29	3	20.00	26	48.15
Moderate symptom	1	7.14	-	-	-	-	-	-	1	1.85
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment
X^2 = 23.7846   ** 0.0006

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	1	7.14	6	54.55	13	96.86	14	93.33	34	63.96
Mild symptom	1	7.14	5	45.45	1	7.14	1	6.67	8	14.82
Moderate symptom	11	78.58	-	-	-	-	-	-	11	20.37
Severe symptom	1	7.14	-	-	-	-	-	-	1	1.85
Total	14	100	11	100	14	100	15	100	54	100

Table 4. The degree of diarrhea symptom associated with the study sample

Before Treatment		
Degree	Number	%
None	15	27.78
Mild symptom	20	37.04
Moderate symptom	19	35.18
Total	54	100

During chemotherapy (Average 12 prescriptions) X2=5.1702 0.1598 Not significant									
Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	7	50.00	8	72.73	12	85.71	12	80.00	39	72.22
Mild symptom	7	50.00	3	77.27	2	14.29	3	20.00	15	27.78
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment $X^2 = 21.4770$ * 0.0015									
None	4	7	10	90.09	12	85.71	12	80.00	38	70.37
Mild symptom	-	-	1	9.09	2	14.29	3	20.00	6	11.11
Moderate symptom	4	28.57	-	-	-	-	-	-	4	7.41
Severe symptom	6	42.86	-	-	-	-	-	-	6	11.11
Total	14	100	11	100	14	100	15	100	54	100

When studying the degree of the symptom in loss of appetite among the study sample (Table 5) it turned out to be that symptoms of severe and moderate loss of appetite was severe among women prior to treatment and was increased by 44.45, 35.18%, respectively. While after treatment a decreased symptom of loss of appetite and a symptom of mild anorexia is at the rate of 88.89% among all study sample, but the differences were not significant. After two weeks by the end of treatment loss of appetite disappeared among all infected study sample at the rate of 38.89%, especially among the group of honey followed by group of black seed while loss of appetite increased to moderate by 85.71% in sample of control group. The significant difference between groups was (p< 0.0010).

Table (6) indicated the degree of fatigue that accompanies the study sample, where half of the sample had moderate symptom of fatigue, and the other half had symptoms of mild and severe fatigue, before treatment. During chemotherapy most of the respondents (83.33%) had mild symptom of fatigue and there were no significant differences between groups. After two weeks of chemotherapy and black seed or honey treatment, or black seed and honey taken together, fatigue disappeared in nearly half of the sample (46.30%). But then again the feeling of fatigue was moderate in the sample of the control group (85.72%) The results of

statistical analysis indicated significant differences at the level of significance less than 0.0020.

Table (7) indicated the degree of feeling drowsy before chemotherapy with the treatment of either black seed or honey; where in percentages of 27.77, 51.86, 20.37% of the sample had symptoms of mild, moderate, and severe drowsiness, respectively. And during the sessions of chemotherapy and treatment of both black seed and honey the feeling of drowsiness were mild or completely disappeared at 79.63, 20.37%, respectively. There were no significant differences between groups. After two weeks by the end of therapeutic sessions for all samples the feeling of drowsiness was mild or completely disappeared at 20.37, 57.41%, respectively.

The degree of symptoms of depression in the study sample was severe, moderate and mild by rate of 18.52, 59.26, 22.22%, respectively. But the symptom of depression disappeared during the treatment of chemotherapy in study samples who took black seed or honey, or both. The differences were significant. And also symptom of depression disappeared after two weeks of chemotherapy and the highest percentage for the sample of the study who took black seed and then honey and finally the group that took black seed and honey together. The differences were significant at the level of probability of less than 0.0001 (Table 8).

Table 5. The degree of appetite loss that accompanies the study sample

Before Treatment		
Degree	**Number**	**%**
None	11	20.37
Moderate symptom	19	35.18
Severe symptom	24	44.45
Total	54	100

During chemotherapy (Average 12 prescriptions)
X^2=8.1282   0.2289   Not significant

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	-	-	1	9.09	-	-	1	6.67	2	3.70
Mild symptom	11	78.57	10	90.91	13	92.86	14	93.33	48	88.89
Moderate symptom	3	21.43	-	-	1	7.14	-	-	4	7.41
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment
$X^2 = 22.4056$ ** 0.0010

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	6	54.55	11	78.57	4	26.67	21	38.89
Mild symptom	2	14.29	5	45.45	3	21.43	9	60.00	14	35.19
Moderate symptom	12	85.71	-	-	-	-	2	13.33	14	25.92
Total	14	100	11	100	14	100	15	100	54	100

Table 6. The degree of fatigue symptom associated with the study sample

Before Treatment		
Degree	**Number**	**%**
None	15	27.77
Moderate symptom	27	50.0
Severe symptom	12	22.22
Total	54	100

During chemotherapy (Average 12 prescriptions)
X^2=7.4563   0.2807   Not significant

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	-	-	1	9.09	3	21.43	4	26.67	8	14.81
Mild symptom	13	92.86	10	90.91	11	78.57	11	73.33	45	83.33
Moderate symptom	1	7.14	-	-	-	-	-	-	1	1.85
Total	14	100	11	100	11	100	15	100	54	100

After 2 weeks of treatment
$X^2 = 20.7077$ ** 0.0020

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	8	63.64	11	78.57	7	46.67	25	46.30
Mild symptom	1	7.14	4	36.36	3	21.43	8	53.33	16	29.63
Moderate symptom	12	85.72	-	-	-	-	-	-	12	22.22
Severe symptom	1	7.14	-	-	-	-	-	-	1	1.85
Total	14	100	11	100	14	100	15	100	54	100

Table 7. The degree of drowsiness symptom associated with the study sample

Before Treatment		
Degree	**Number**	**%**
None	15	27.77
Moderate symptom	28	51.86
Severe symptom	11	20.37
Total	54	100

During chemotherapy (Average 12 prescriptions)
X^2=6.0125   0.1110   Not significant

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	-	-	2	18.18	5	35.71	4	26.67	11	20.37
Mild symptom	14	100	9	81.82	9	64.29	11	73.33	43	79.63
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment
X^2 = 26.693   ** 0.0001

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	8	72.73	12	85.71	11	73.33	31	53.41
Mild symptom	2	14.29	3	27.27	2	14.29	4	26.67	11	20.37
Moderate symptom	12	85.71	-	-	-	-	-	-	12	22.22
Total	14	100	11	100	14	100	15	100	54	100

Table 8. The degree of depression symptom associated with the study sample

Before Treatment		
Degree	**Number**	**%**
None	12	22.22
Moderate symptom	32	59.26
Severe symptom	10	18.52
Total	54	100

During chemotherapy (Average 12 prescriptions)
X^2=14.4987   * 0.0245

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	-	-	5	45.45	8	57.14	8	53.33	21	38.88
Mild symptom	12	85.71	6	45.55	5	35.71	7	46.67	30	55.56
Moderate symptom	2	14.29	-	-	1	7.14	-	-	3	5.56
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment
X^2 = 8.2938   ** 0.0001

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	10	90.91	11	78.57	9	60.00	30	55.55
Mild symptom	-	-	1	9.09	3	21.43	6	40.00	10	18.52
Moderate symptom	14	100	-	-	-	-	-	-	14	25.93
Total	14	100	11	100	14	100	15	100	54	100

The results of the study (Table 9) showed that the degree of anxiety before therapy sessions in study samples were severe, moderate, mild at the rate of 38.88, 35.19, 25.93%, respectively. Similarly, there was no symptom of anxiety among the sample during the course of treatment and also two weeks after treatment with a rate of 18.52%, especially between groups of black seed or honey or both. After two weeks of treatment, anxiety had increased in samples of the control group, either moderate or severe in degree. However, statistical analysis did not show significant differences between groups.

The Fernsler (2003) stated that there must be an accurate assessment of health status and psychological evaluation of patients before starting chemotherapy. The information will help the medical team in charge of identifying risk factors that could contribute to the occurrence of side effects or increase its severity. In addition another factor that may affect the response of breast cancer patients to treatment is the age and general condition, chronic diseases and nutritional status.

Garofolo, et al. (2005) indicated that the treatment of cancer, particularly chemotherapy and radiation, are important factors affecting nutrition. The treatment is associated with many side effects such as nausea, vomiting, inflammation of mucous membranes, constipation, and anorexia, which plays a role in loss of appetite, loss of nutrients, changes in energy discharge, weight loss, especially from modifying fatty tissues of the body and these conditions leads to malnutrition, especially when chemotherapy sessions is repeated at frequent intervals.

Cancer Compass (2008) also recollected the side effects of biological treatment of cancer patients that often appeared during the first dose of treatment of *Herceptin* and include fever, chills, pain, emaciation, nausea, vomiting, diarrhea, headache, breathing difficulty, itching skin; treatment also causes damage to the heart and lead to heart failure, and may affect the lungs and cause breathing problems. Al-thabit (2009) noted that women with breast cancer suffer from a psychological challenges and pressures, such as concerns about their health and future and how to cope with the disease.

Table 9. The degree of anxiety symptom associated with breast cancers

Before Treatment		
Degree	**Number**	**%**
None	14	25.93
Moderate symptom	19	35.19
Severe symptom	21	38.88
Total	54	100

During chemotherapy (Average 12 prescriptions)
X^2=6.5504   0.3644   Not significant

Degree	Control		Black seed		Honey		Black seed + honey		Total	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
None	-	-	2	18.18	4	28.57	4	26.67	10	18.52
Mild symptom	3	92.86	9	81.82	9	64.29	11	73.33	42	77.78
Moderate symptom	1	7.14	-	-	1	7.14	-	-	2	3.70
Total	14	100	11	100	14	100	15	100	54	100

After 2 weeks of treatment
X^2 = 6.5504   Not significant 0.3644

Degree	Control		Black seed		Honey		Black seed + honey		Total	
None	-	-	2	18.18	4	28.57	4	26.67	10	18.52
Mild symptom	1	7.14	9	81.82	9	64.29	11	73.33	30	55.55
Moderate symptom	10	71.43	-	-	1	7.17	-	-	11	20.37
Severe symptom	3	21.43	-	-	-	-	-	-	3	5.56
Total	14	100	11	100	14	100	15	100	54	100

The scale was designed to measure psychological pressure and psychological, social and marital adjustment for 198 married Jordanian patients with early breast cancer, ages between (20-70) years and came back to Hussein Cancer Center for follow-up treatment and examination after surgery. The study recommended the need for psychological, social, marital support, and educate women with breast cancer and their families about coping strategies for adjusting to stress, especially for those young women and women with low educational level, as well as the need to identify sources of stress, according to personal and clinical characteristics of the patient such as age, educational level, social, duration of treatment, and stage of the disease.

It is concluded from this study the importance of the use of complementary and alternative treatment by using natural foods especially black seed and honey for the prevention and protection from cancer or alleviation of symptoms associated with different treatments of cancer. In addition natural foods treatment reduces or avoids side effects of chemical treatment. Wherein the components of black seed and honey interfere with various stages as to the process of cancer formation by affecting the interaction pathways within cells and which may represent a molecular mechanism for the prevention of cancer. And honey distinct characteristics are anti-inflammatory, antioxidant, anti-tumor growth, stimulating apoptosis, and its impact on the immune system where honey contains approximately 181 active ingredients. As to the black seed their impact is due to its ability to destroy cancer cells, and increase the number of cells producing antibodies and effectiveness of anti-tumor growth.

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الملخص العربي

دور الحبة السوداء وعسل النحل في تخفيف درجة الإحساس بالأعراض المصاحبة للمصابات بسرطان الثدي

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استهدفت هذه الدراسة التعرف على تأثير تناول كل من الحبة السوداء وعسل النحل على تحسين حالة المصابات بسرطان الثدي، أجريت الدراسة في قسم الأورام بمستشفى النور التخصصي ومدينة الملك عبد الله الطبية بمكة المكرمة. وتكونت العينة من أربعة وخمسين مريضة وقد تراوحت أعمارهن من أكثر من 18سنة إلى 70 سنة. وتم تقسيم عينة البحث إلى أربع مجموعات، استمرت جميع المجموعات في العلاج الكيميائي واعتبرت المجموعة الأولى (14 مريضة) مجموعة ضابطة، والمجموعة الثانية(11مريضة) تناولت0.2 جرام من الحبة السوداء/كجم وزن الجسم خلال اليوم والمجموعة الثالثة(14 مريضة) تناولت 60 جرام من العسل خلال اليوم. بينما تناولت المجموعة الرابعة(15 مريضة) الحبة السوداء وعسل النحل معا بنفس جرعات المجموعة الثانية والثالثة معا وذلك لمدة 5 أيام في الأسبوع. وقد استمر أيضا العلاج بالحبة السوداء, والعسل, والحبة السوداء والعسل معاً لمدة أسبوعين بعد انتهاء العلاج الكيميائي.

أشارت النتائج لحدوث انخفاض في درجة الإحساس بالألم أثناء العلاج الكيميائي مع تناول الحبة السوداء أو عسل النحل.بعد أسبوعين من نهاية العلاج الكيميائي والغذائي فقد اختفي الإحساس بالغثيان بين 51.85% من مجموع العينات. أثناء العلاج الكيميائي ارتفعت نسبة عدم الإحساس بالقيء إلى50% بين العينة وخاصة بين مجموعتي عسل النحل والحبة السوداء وعسل النحل معا.اختفى الإحساس بالإسهال بعد المعاملة وأيضا بعد أسبوعين من المعاملة خاصة بين مجموعة العسل، ومجموعة الحبة السوداء وعسل النحل معا. انخفض الإحساس بفقدان الشهية بعد المعاملة وكانت نسبة الإحساس الخفيف بفقدان الشهية هي 88.89% بين عينة الدراسة. بعد أسبوعين من العلاج الكيميائي وتناول الحبة السوداء، أو عسل النحل، أو الحبة السوداء وعسل النحل معا اختفى التعب لدى ما يقارب نصف العينة(46.30%). أثناء دورات العلاج الكيميائي وتناول الحبة السوداء وعسل النحل أوكلاهما معا فقد كان الإحساس بالنعاس خفيفاً, أواختفى تماما لدى79.63، 20.37% على التوالي. اختفى الإحساس بالاكتئاب أثناء المعاملة, وأيضاً بعد أسبوعين من المعاملة في المجموعات التجريبية الثلاثة. تشابه عدم وجود اي قلق بين العينات أثناء دورات العلاج, وأيضاً بعد العلاج بأسبوعين وذلك بنسبة 18.52%،وخاصة بين مجموعات الحبة السوداء أو عسل النحل أو كلاهما معا. ويستنتج من هذه الدراسة أهمية الاستعانة بالعلاج التكميلي والبديل باستخدام الأغذية الطبيعية خاصة الحبة السوداء وعسل النحل للوقاية والحماية من مرض السرطان أو التخفيف من الأعراض الجانبية المرتبطة بعلاجات السرطان المختلفة.