

Oral Complications in Adult Patients Under Chemotherapy Treatment

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الخلاصة:

الهدف من الدراسة هو تقييم المشاكل الفموية للمرضى تحت العلاج الكيماوي (من بداية بروتوكول العلاج حتى نهايته) تألفت عينة الدراسة من 125 مريض (80 ذكرا و45 أنثى) أدخلوا الى وحدة أمراض الدم والأورام في مستشفى بغداد التعليمي والمركز التخصصي لزراعة نخاع العظم للفترة من 25 نيسان 2010 ولغاية 25 حزيران 2010. تراوحت أعمارهم من 18 سنة فاكثر للبدء ببروتوكول العلاج والمرضى مشخصين بالأمراض السرطانية من قبل الطبيب الأخصائي وقد أعدت استمارة استبيانبة اعدت لهذا الغرض تألفت من ثلاثة أجزاء (الجزء الاول خاص بالمعلومات الشخصية للمريض والثاني بالمعلومات السريرية والثالث خاص بالمشاكل الفموية). تم تحليل النتائج إحصائيا باستخدام التكرار والنسبة المئوية ومعدل الدرجات وقداظهرت نتائج الدراسة ان أكثر المرضى من الشباب الذكور من خريجي الدراسة الثانوية ومعظمهم مستمرين في الدراسة ومشخصين بمرض ابيضاض الدم ومدة التشخيص اقل من سنة ومدة الرقود في المستشفى قليلة أيضا وان مشاكل الفم تمثلت في الألم والتهاب الغشاء المخاطي للفم والأحمرار داخل وماحول الفم وزيادة لزوجة اللعاب ونزف الفم وتغير في الطعم وجفاف الفم والأحاساس بحرقة في الفم.

Abstract:

Aim of the study to assess oral complications under chemotherapy treatment (still from protocol therapy till end it)

125 patients (80 males and 45 females) admitted to blood diseases and oncology unit in Baghdad teaching hospital and bone marrow transplantation center from 25th April 2010 to the 25th June 2010. Age from 18 years and above to start protocol therapy all patients were diagnosed by physician as oncology's patients, questionnaires use in the study are consist of 3 part (1st part: demographic characteristics, 2nd part clinical characteristics, 3rd part main oral complications. Data analyzed were by use frequency, percentage and mean of score. Study show the younger stage, males and student, secondary school graduate, diagnosed by Dr, as leukemia, short time duration of disease and also duration in hospitalization, oral complications were present in pain and

mucositis, redness, thick stringer saliva, mouth bleeding, change in taste, dry mouth and burning sensation

Introduction:

Oral complications are common in patients with hematological malignancies who undergo chemotherapy treatment^[1]. Once all complications of chemotherapy have resolved, patients may be able to resume their normal dental care schedule^[3]. The social aspects oral complications can make them the most difficult problems for cancer patients to cope with^[5]. Oral complications affected eating speaking and may make the patient unable or unwilling to take part in mealtimes or to dine out^[5]. Oral complications associated with chemotherapy and radiation therapy may be caused directly by the treatment or may result indirectly from side effects of the treatment^[3,9]. With over 1.4 million new cases of cancer diagnosed each year and a shift to outpatient management, you will likely see some of these patients in your practice^[3,5]. Because cancer treatment can affect the oral tissues, you need know about potential oral side effects^[3,9]. Preexisting or untreated oral disease can also complicate cancer treatment^[1,10]. Your role in patient management can extend benefits beyond the oral cavity^[1,10]

Materials and Methods:

A descriptive (purpose) study was conducted on 125 adults patients suffering from oral complications who were referred by oncologist to start protocol therapy for blood diseases unit or oncology unit in Baghdad teaching hospital and bone marrow transplant center, to assess oral complications of patients under chemotherapy treatment, from 25th April 2010 to 25th June 2010, There were 80 males and 45 females ranging in age from 18 – 67 years, all patients were studied by using questionnaires included, demographic characteristics (age, gender, occupation,...etc), clinical characteristics and main oral complications, which included 15 items, this items are measured on 3 level of liker rating scale, sever (3), moderate (2), mild (1), this cut-off point was (2) of all items. Data were analyzed through the descriptive statistical analysis (frequency, percentage, mean of score)

Results:

Demographic characteristics

Age	No	%	Gender			
			Female No	%	Male No	%
<u>18 – 24</u>	<u>45</u>	<u>36</u>	10	8	35	28
25 – 31	20	16	10	8	10	8
32 – 38	10	8	7	5.6	3	2.4
39 – 45	12	9.6	5	4	7	5.6
46 – 52	14	11.2	2	1.6	12	9.6
53 – 59	10	8	7	5.6	3	2.4
60 – 66	8	6.4	2	1.6	6	4.8
67 and above	6	4.8	2	1.6	4	3.2
Total	125	100	45	36	80	64

Table- 1: age and gender distribution of 125 patients with oral complication
 Of the 125 adult patients with oral complications under chemotherapy treatment, the incidence of oral complications is more common in males (28%). At Age range between 18 – 24 years was (36%)

Occupation	No	%	Gender			
			Female No	%	Male No	%
Government employ	20	16	5	4	15	12
Private sector	20	16	5	4	15	12
Retired	20	16	10	8	10	8
Self employ	10	8	2	1.6	8	6.4
Unemployed	5	4	3	2.4	2	1.6
House wife	15	12	5	4	10	8
Student	35	28	15	12	20	16
Total	125	100	45	36	80	64

Table-2: Occupations and gender distribution of 125 patients with oral complications

The total patients in this study, high percentage (28%) was student with male sex predilection (16%)

Marital Status	No	%	Gender			
			Female No	%	Male No	%
Married	80	64	20	16	60	48
Single	30	24	15	12	15	12
Divorce	5	4	3	2.4	2	1.6
Widowed	10	8	7	5.6	3	2.4
Total	125	100	45	36	80	64

Table-3: Marital status and gender distribution of 125 patients with oral complications

Those patients with marital status (125 patients) high percentage (64%) were married and male more than female

Level of Educations	No	%	Gender			
			Female No	%	Male No	%
Illiterate	10	8	5	4	5	4
Literate	10	8	5	4	5	4
Primary school graduate	10	8	5	4	5	4
Secondary school graduate	65	52	20	16	45	36
Institute graduate	10	8	5	4	5	4
College and post graduate	20	16	5	4	15	12
Total	125	100	45	36	80	64

Table-4: Educational level and gender distribution of 125 patients with oral complications .

Those patients with educational level, the occurrence of oral complications in those patients was more frequent in those with secondary school graduate, education level which was (52%) and it was more frequent male more than in female

Clinical Diagnosis	No	%	Gender			
			Female No	%	Male No	%
Leukemia	60	48	20	16	40	32
Lymphoma	30	24	12	9.6	18	14.4
Multiple myeloma	25	20	10	8	15	12
A plastic anemia	10	8	3	2.4	7	5.6
Total	125	100	45	36	80	64

Table-5: Clinical diagnosis and gender distribution of 125 patients with oral complications

Leukemia was the most common malignant disease in this study and it was (48%) of the sample with male to female ratio of 2:1

Duration of disease	No.	%	Gender			
			Female No.	%	Male No.	%
Less than 1 years	65	52	15	12	50	40
More than 1 years	60	48	30	24	30	24
Total	125	100	45	36	80	64

Table-6: Duration of disease and gender distribution 125 patients with oral complications

Those patients with duration of disease (125 patients) high percent were (52%) duration of disease less than 1 year in male more than female .

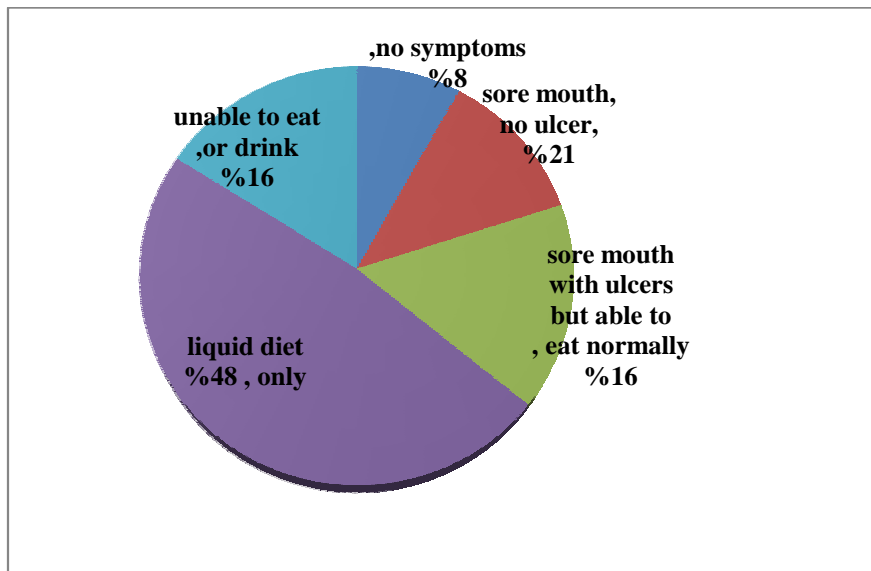


Figure- 7: Assessment mucositis 125 patients with oral complications

Those patients with assessment mucositis (125) patient's high percent were (48%) liquid diet only

No	Items	Mild (1)		Moderate (2)		Sever (3)		M.S
		F	%	F	%	F	%	
1	Mouth bleeding	25	20	35	28	65	52	2.32
2	Teeth necrosis	60	48	45	36	20	16	1.68
3	Impaired ability to eat	55	44	40	32	30	24	1.65
4	Impaired ability swallow	45	36	45	36	35	28	1.92
5	Impaired ability to speak	60	48	40	32	25	20	1.72
6	Infection	45	36	45	36	35	28	1.92
7	Loss of elastic of mastication muscle	45	36	65	52	15	12	1.76
8	Restrict normal ability to open mouth	45	36	65	52	15	12	1.76
9	Thick, stringer saliva	15	12	45	36	65	52	2.4
19	Increase thirst	65	52	45	36	15	12	1.6
11	Change in taste	15	12	50	40	60	48	2.36
12	Dry mouth	10	8	50	40	65	52	2.44
13	Burning sensation	15	12	45	36	65	52	2.52
14	Redness	10	8	55	44	60	48	2.4
15	Pain	25	20	40	32	60	48	2.67

Table -8: Main oral complications

(Table-8) indicated that the mean of score on item (1, 9, 11, 12, 13, and 14, 15) was above cut of point which including severs pain, burning sensation, dry mouth, and change in taste, mouth bleeding, thick stringer saliva and redness

Discussion:

In our study finding the oral complications are common in patients receiving chemotherapy to the cancer ^[1]. The oral cavity is at high risk of side effect of chemotherapy for number of reasons ^[2]. The finding the majority of sample that were (18-24) years, this is result is supported with many others studies, are riskily than others, and other related with clinical diagnosis leukemia is commonest in young adults and the middle age ^[2,4]. In this study finding age, male more than female this result supported with many others, male which susceptible the oncology disease. Regarding their occupation (28%) was student (Table-2) and (64%) were married (Table-3) and (52%) were secondary school graduate (Table-4). Duration of diseases show less than 1 year (Ttable-6), Oral mucositis is specific problems for the effects and appearance in mucous membrane epithelial for mouth and the incidence and severity of mucositis have been related to the degree the preexisting mucosal diseases, oral hygiene and the nature of therapy ^[9]. The main oral complications related item (1) mouth

bleeding from the decreased in platelets counts and disturbance in clotting factor associated with the effect of drug ^[7,8]. Item (9) Thick stringer saliva, salivary gland dysfunction resulting in a shift highly cariogenic microorganism seen with some chemotherapeutic agents and radiation therapy that incorporates the salivary glands in radiation field ^[5,6], item (10) dry mouth (xerostomia) occurs when the salivary gland dysfunction produce to little saliva also poor intake water ^[9]. Item (12) change in test result from preceptors food, ranging from unpleasant of test and also common side effects of chemotherapy, these taste changes are caused by damage to the taste buds, dry mouth, infection ^[6,7]. Item (13) redness, may be present in same medical cases results from still damage in covering of epithelia, Because cancer treatment can affect the oral tissues ^[3,5,9]. Item (14) burning sensation, is most common side effect of chemotherapy ^[10]. Regarding the item (15) pain, finding sever pain , this is result is supported the majority of causes cancer pain anxiety, or related treatment or mucositis and The most common cause of facial pain is temporomandibular muscle and joint disorder (TMJD) also certain anticancer drugs can causes nerve damage that may result in oral pain, also causes Pain intensity (intense, dreadful horrible) long time period treatment of chemotherapy or radiation therapy and pain may also reflects treatment related toxicity ^[5,7,10].

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