

Impact of Liver Cirrhosis upon Adult Patients' Daily Living Activities at Baghdad Teaching Hospitals.

أثر تشمع الكبد على نشاطات الحياة اليومية للمرضى البالغين في مستشفيات بغداد التعليمية

Haider M. Majeed , M.Sc. Adult Nursing Department- College of Nursing /University of Baghdad .

Dr. Hussein Hadi Atiyah, Assist. prof. PhD. Adult Nursing Department- College of Nursing / University of Baghdad

E- mail : haider_m2008@yahoo.com

haider_2008mohammed@yahoo.com

الخلاصة

الهدف:- تهدف الدراسة الحالية إلى تقييم نشاطات الحياة اليومية للمرضى المصابين بتشمع الكبد ولمعرفة العلاقة بين الخصائص الديموغرافية ونشاطات الحياة اليومية.

المنهجية:- أجريت دراسة وصفية لتقييم نشاطات الحياة اليومية للمرضى المصابين بتشمع الكبد المراجعين العيادة الخارجية في مستشفى الجهاز الهضمي والكبد التعليمي ومستشفى بغداد التعليمي التابع إلى مدينة الطب في بغداد. وقد أجريت الدراسة خلال ٢٨- تشرين الأول ٢٠١٤ إلى ١٥- أيار ٢٠١٥. وشملت عينة البحث (١٠٠) مريض المصابين بتشمع الكبد و اختيرت بطريقة غرضية (غير احتمالية) لتحقيق أهداف الدراسة. وصممت استمارة استبانة لغرض الدراسة تضمنت ثلاث اجزاء (المعلومات الديموغرافية، التاريخ السريري للمريض والأسرة، ونشاطات الحياة اليومية). وتم تحديد صدق الأداة من خلال عرضها على (١٣) خبيراً من ذوي الاختصاص ومن ثم تطبيق (الاختبار- وإعادة الاختبار) لتحديد ثبات الاستمارة من خلال حساب معامل الارتباط بيرسون ($r=0.84$) وجمعت المعلومات باستخدام استمارة الاستبانة وبطريقة المقابلة. وتم تحليل البيانات من خلال أسلوب الإحصاء الوصفي (التكرار، النسبة المئوية و الوسط الحسابي الموزون) والأسلوب الإحصائي الاستنتاجي (الانحراف المعياري ومعامل الارتباط).

النتائج:- أظهرت النتائج الدراسة بان (٥٨%) من عينة الدراسة هم ذكور واغلبهم من الفئة العمرية ٤٨-٥٧ سنة وان (٨٣%) وكانت غالبيتهم من المتزوجين، وان (٤٣%) حاصلين على شهادة المتوسطة، وكانت معظم عينة الدراسة (٣٣%) من ذوي الاعمال الحرة، و (٦٠%) يعيشون في المناطق الحضرية، و (٤٣%) كان الوضع الاقتصادي متوسط لديهم. وأظهرت نتائج الدراسة أيضاً أن (٥٠%) من عينة الدراسة مصابين بالتهاب الكبد الفيروسي و (٤٨%) لا يمتلكون اي امراض مزمنة للتاريخ الاسري. **الاستنتاج:-** أشارت نتائج الدراسة بأن وجود انخفاض في مستوى اداء نشاطات الحياة اليومية في جميع محاور نشاطات الحياة اليومية. **التوصيات:-** أوصت الدراسة بالعمل على إنشاء قسم متخصص بالعلاج الوقائي والغذائي في جميع مستشفيات التعليم لتقديم النصائح والإرشادات للمرضى ومساعدتهم في التكيف مع الحالة المزمنة وتحسين جميع نشاطات الحياة اليومية.

Abstract:-

Objective(s): To assess impact of liver cirrhosis upon adult patients' daily living activities. and to find out the relationship between demographic characteristic with activities of daily living.

Methodology: A descriptive study is carried out throughout the present study to assess activities of daily living for adult patients with liver cirrhosis who attended the outpatient clinic department of Gastroenterology and Hepatology Teaching Hospital and Baghdad Teaching Hospitals in Baghdad. The study was carried out during the period extended from 28th October 2014 to 15th May, 2015. A purposive (non- probability) sample of (100) patients with liver cirrhosis. Questionnaire form was constructed for purpose of the study and it comprised of three parts. They include (1) demographic characteristics (2) clinical history for patient and family (3) assessment of activities of daily living. Content validity of the questionnaire was determined through a panel of (13) experts. Reliability and validity of questionnaire was determined through test re-test ($r=0.84^{**}$) of pilot study. Data was collected by the researcher who interviewed those patients and filled out the constructed questionnaire form. Data were analyzed by using descriptive statistical approach (frequency, percentage and mean of score) and inferential statistical approach (standard deviation and correlation coefficient).

Results: The findings of the revealed that (58%) of the study samples were males, and most of them were age group (48-57) years old, (83%) from the sample was married, high percentage of them were intermediate graduate (43%), most of them (33%) were Free job, majority of the study samples (60%) from urban residence, and (49%) were parley sufficient of monthly income classification. highest percentage (50%) had hepatitis B & hepatitis C as past medical history and (48%) of the study sample hadn't family history for any disease.

Conclusions: Our data indicate that the activity of daily living of patients with liver cirrhosis is moderate decline in all domains of activities of daily living.

Recommendations: The study recommended an establishing of a special department in all teaching hospitals called nutrition and prevention therapy to provide guidance and advice for patients who attending to the center to improve the health status of the patient and the activities of daily life.

Keywords: Activity of daily livings, liver cirrhosis.

INTRODUCTION:

Activities of daily living is use umbrella term relating to self-care, comprising those activities or tasks that people undertake routinely in their everyday life. The activities can be subdivided into personal care or Basic ADL (BADL) and domestic and community activities Instrumental ADL (IADL). Specifically suggests that BADL "is typically restricted to activities involving functional mobility (ambulation, wheelchair mobility, bed mobility and transfers) and personal care (feeding, hygiene, toileting, bathing and dressing)" Whilst an early definition of IADL comes from (Katz) who stated that "instrumental activities of daily living functions are concerned with a person's ability to cope with her/his environment in terms of such adaptive tasks as shopping, cooking, housekeeping, laundry, use of transportation, managing money, managing medication and the use of the telephone" ⁽¹⁾. Cirrhosis results from different mechanisms of liver injury that lead to necroinflammation and fibrogenesis; histologically it is characterised by diff use nodular regeneration surrounded by dense fibrotic septa with subsequent parenchymal extinction and collapse of liver structures, together causing pronounced distortion of hepatic vascular architecture⁽²⁾. This distortion results in increased resistance to portal blood flow and hence in portal hypertension and in hepatic synthetic dysfunction. Clinically, cirrhosis has been regarded as an end-stage disease that invariably leads to death, unless liver transplantation is done, and the only preventive strategies have been screening for oesophageal varices and hepatocellular carcinoma. Lately, this perception has been challenged, because 1-year mortality in cirrhosis varies widely, from 1% to 57%, depending on the occurrence of clinical decompensating events⁽³⁾. Histopathologists have proposed that the histological term cirrhosis should be substituted by advanced liver disease, to underline the dynamic processes and variable prognosis of the disorder⁽⁴⁾. Moreover, fibrosis, even in the cirrhotic range, regresses with specific therapy if available, such as antiviral treatment for chronic hepatitis B or C^(5,6).

The new concept in management of patients with cirrhosis is the use of non-specific therapies for prevention and early intervention to stabilise disease progression and to avoid or delay decompensation and the need for liver transplantation⁽⁷⁾.

OBJECTIVES OF THE STUDY:

- 1- To assess of activity of daily livings for adult patients with liver cirrhosis.
- 2- To find out the relationship between demographic characteristic (age, gender, level of education, marital status, occupation, residence, monthly income) with activity of daily livings.

METHODOLOGY:

A descriptive study is carried out throughout the present study to assess activities of daily livings for adult patients with liver cirrhosis who attended the outpatient clinic department of Gastroenterology and Hepatology Teaching Hospital and Baghdad Teaching

Hospitals in Baghdad .The study was carried out during the period extended from 28th October 2014 to 15th May , 2015. The sample consisted of (100) patients. A questionnaire interview format was designed and developed by the researcher for the purpose of the study; such development was employed through the available literature, clinical background and interview with patients who liver cirrhosis. All the items were measured on scale of (3) indicates that the needed to help as (no need help).(1),(2) need some sort help,(3)needed to effectively .Rating scale was used to rate the frequency and extension of help needed⁽⁸⁾. The questionnaire consisted of(3) Part I: Demographic Information Sheet.PartII:clinical history for patient and family. PartIII:Activity of daily livings. The content validity of the instrument was established through a panel of(13)experts. Test- Coefficients for (51) items of activity of daily livings of liver cirrhosis were($r=0.84^{**}$) for the total score of activity of daily living. The data were collected by using the questionnaire structured format through interview technique. Each patient was interviewed personally by the researcher. Throughout each interview explanation of the study was help up with patient in order to accept participation. Each interview took approximately from (15-30) minute and initiated at waiting room. Data were collected between 8.30am to 1.30pm. The determination was conducted during the period of February 3th 2015 to the April 5th 2015. The data were analysed through descriptive data analysis and inferential data analysis through the use of statistical package of social sciences (SPSS) version 16.0.

RESULTS:

Table (1): Distribution of the study Samples by Socio-Demographic Characteristics.

No	Variables	Groups	F	%	Cumulative%
1	Age Groups (Per years)	18-27years	18	18.0	18.0
		28-37years	7	7.0	25.0
		38-47years	8	8.0	33.0
		48-57years	42	42.0	75.0
		58-67years	25	25.0	100.0
2	Gender	Male	58	58.0	58.0
		Female	42	42.0	100.0
3	Marital status	Single	16	16.0	16.0
		Married	83	83.0	83.0
		Divorced	1	1.0	1.0
4	Level of Education	Illiterate	15	15.0	15.0
		Read & write	15	15.0	30.0
		Primary graduate	4	4.0	34.0
		Intermediate graduate	43	43.0	77.0
		Secondary graduate	10	10.0	87.0
		Diploma graduate	8	8.0	95.0
		College graduate	4	4.0	99.0
		Master graduate	1	1.0	100.0
5	Occupation	Employee	21	21.0	21.0
		Free job	33	33.0	54.0
		Housewife	27	27.0	81.0
		Student	7	7.0	88.0
		Retired	12	12.0	100.0
		Total	100	100.0	
6	Residence	Urban	60	60.0	60.0

		Rural	40	40.0	100.0
7	Type of house	Property	54	54.0	54.0
		Leasehold	28	28.0	82.0
		Common	18	18.0	100.0
8	Monthly income	Sufficient	39	39.0	39.0
		Parley sufficient	49	49.0	88.0
		Insufficient	12	12.0	100.0

Table1 revealed that(58%) of the study samples were males, and most of them were age group (48-57) years old, (83%)from the sample was married, high percentage of them were intermediate graduate (43%), most of them (33%) were Free job, majority of the study samples(60%) from urban residence, and (49%) were parley sufficient of monthly income classification.

Table(2): Distribution of patients and family according to liver cirrhosis related to clinical history.

1st	Clinical history for patient	F.	Percent	Cumulative %
1	Alcoholic liver disease	18	18.0	18.0
2	Non-alcoholic steatohepatitis	5	5.0	23.0
3	Primary biliary cirrhosis	5	5.0	28.0
4	Hepatitis B & hepatitis C	50	50.0	78.0
5	Cryptogenic	14	14.0	92.0
6	Wilson's disease	6	6.0	98.0
7	Budd-Chiari syndrome	2	2.0	100.0
2nd	Clinical history for family			
1	Hepatitis B & hepatitis C	6	6.0	6.0
2	Wilson's disease	8	8.0	14.0
3	Heart disease	15	15.0	29.0
4	Diabetes mellitus	23	23.0	52.0
5	No have any disease	48	48.0	100.0

Table2 shows that highest percentage (50%) had hepatitis B & hepatitis C as past medical history and (48%) of the study sample hadn't family history for any disease.

Table (3):Activities of daily livings for adult patients with liver cirrhosis.

No	Items	No need help	need some help	Needed to effectively	M.S	Severity
1st	prepare eating & drink					
1	Use tools properly	51	45	4	1.53	L
2	Selects & prepares food	5	35	60	2.55	H
3	Selects & prepares drink	11	42	47	2.36	M
5	Drink fluids	64	33	3	1.39	L
5	Eating	43	51	6	1.36	L
2nd	Personal hygiene					
1	Prepare the bathroom	13	47	40	2.27	M
2	Bathing	29	44	27	1.98	M
3	Drying after bathing	37	43	20	1.83	M
4	Drying & combing after showering	41	36	23	1.82	M
5	Use skin moisturizer	49	39	12	1.63	L
6	Use the toilet naturally	40	41	19	1.79	M
7	Remove put clothes after defecation	58	28	14	1.56	L
8	Body cleaning after defecation	60	27	13	1.53	L
9	Clean the toilet after defecation	32	51	17	1.85	M
10	Clothing wears	21	33	46	2.25	M
11	Bring clothes from the treasury	17	58	25	2.08	M

12	Doing laundry	13	25	62	2.49	H
13	Wash hands before& after meals	65	35	0	1.35	L
14	Wash hands after using the toilet	68	30	2	1.34	L
15	Wash your teeth	66	28	6	1.4	L
16	Wash your face	71	28	1	1.3	L
17	Cut nails	15	54	31	2.16	M
18	Shaving the beard	1	39	60	2.59	H
19	hair demobilization	36	39	25	1.89	M
3 rd	Physical activity					
1	Walk independently	37	56	7	1.7	M
2	Exercise	0	4	96	2.96	H
3	The rise and descent of stairs	1	52	47	2.46	H
4	Do prayer	2	58	40	2.38	M
5	Doing housework	0	47	53	2.53	H
6	Moving from the chair to the bed	59	36	5	1.46	L
7	Sitting in the chair and movement	58	40	2	1.44	L
8	Driving a car	0	46	54	2.54	H
9	The use of general transport	0	45	55	2.55	H
10	Travel	0	45	55	2.7	H
4 th	Social activity and hobbies					
1	Use the phone	32	53	15	1.83	M
2	Use the laptop	5	50	45	2.4	H
3	Use the internet to connect with others	1	36	63	2.62	H
4	Financial Management	17	47	36	2.19	M
5	Recognition	24	61	15	1.91	M
6	Watching TV and listening to radio	77	20	3	1.26	L
7	The use of electronic games of amusement	9	43	48	2.39	L
8	Participating in leisure activities e.g.hunting	0	0	100	3	H
9	Participating in race running	0	0	100	3	H
10	Participate in races boxing or karate	0	0	100	3	H
11	Participation in the game of football	0	7	93	2.93	H
12	Shopping	0	25	75	2.75	H
13	Visit relatives and friends	0	24	76	2.76	H
5 th	medication					
1	Taking drug dose correctly	34	44	22	1.88	M
2	Take drug on time	19	52	29	2.1	M
3	Discriminate between doses	9	54	37	2.28	M
4	Prepare medication	3	75	22	2.19	M

M.s=mean of score(1-1.69= low,1.7-2.39= moderate,2.4-3= high)

Table(3)shows that the mean of score are high on items(1st(3),2nd(1,2,3,4,6,9,10,11,17,19),3rd(1,4,10)4th (1,4,5)5th(1,2,3and4)and low on theremaining items.

Table (8) Correlation coefficient between (gender, age, level of education, residence, marital status, occupation, monthly income, accommodation type) with activity of daily livings.

correlation	gender	age	Education	residence	Marital	occupation	income	House
gender	1	.309**	.055	.298**	.227*	-.074-	.256*	.240*
age	.309**	1	.018	.660**	.767**	-.129-	.800**	.701**
education	.055	.018	1	-.027-	.069	.086	-.045-	-.135-
residence	.298**	.660**	-.027-	1	.372**	-.007-	.704**	.861**
Marital	.227*	.767**	.069	.372**	1	-.160-	.510**	.393**
occupation	-.074-	-.129-	.086	-.007-	-.160-	1	-.207*	-.104-
income	.256*	.800**	-.045-	.704**	.510**	-.207*	1	.813**
House	.240	.701**	-.135-	.861**	.393**	-.104-	.813**	1
ADLs	.103	.558**	-.188-	.504**	.340**	.057	.584**	.597**

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 8 indicated that there is significant between activity of daily livings with {age ($r=.558^{**}$), residence ($r=.504^{**}$), monthly income ($r=.584^{**}$), and house type ($r=.597^{**}$) } at $p < 0.01$ and there is significant between activity of daily livings with level of education ($r=.188$) at $p < 0.05$ and there is no relationship between activity of daily livings with { gender ($r=.103$), occupation ($r=.057$).

DISCUSSION:

Throughout the course of the data analysis of the present study, the findings shows the most of the study samples are males (58%) while the remaining are females, and the present of the study demonstrate that forty two percent of the study samples at age between (48-57) year old, majority of them are continuous married, (49%) of them a parley sufficient of monthly income classification. The findings agree with⁽⁹⁾. to assess Frequency of poor quality of life and predictors of health related quality of life in cirrhosis. Total of 273 participants were recruited in the study; among them 155 (57%) were males; mean age of participants was 49 years ($SD \pm 11$ years); among them majority of study participants i-e 184 (67.5%) belonged to age group of 40–60 years.

This findings can be supported by another study. They present that of (31.3%) of sample in their study at 41-60 years old⁽¹⁰⁾.

Our findings about gender are similar to those reported that. 305 patients, 126 (41.3%) were females and 179 (58.7%) were males. The mean age of the patients was 40.67 (± 14.39) (Mean \pm (Standard Deviation) (M \pm SD) years. The age range was between 18 and 71 years⁽¹¹⁾.

This findings can be supported by another study the findings who reported that study the findings of that around two thirds of the study subjects were males and their ages ranged between 40 to less than 60 years old with a mean age of 54.9 \pm 9.88⁽¹²⁾.

This findings were in good agreement with that obtain by other researcher who stated in their study about "CT esophagography: Non-invasive screening and grading of esophageal varices in cirrhosis" who found that three quarter of the subjects were male and their mean age was 56.84 \pm 7.52 years⁽¹³⁾.

Another study entitled "esophageal varices in patients with liver cirrhosis" reported that the male: female ratio was 1.9:1 with mean age 51.6 \pm 10.2 and 55.4 \pm 10.6⁽¹⁴⁾.

These result were similar to those result obtained by other researcher who stated that thirty three percent of the study samples are intermediate graduated as level of education⁽¹⁵⁾.

Thirty three percent of the study samples are free job and the majority of the study samples (60%) from urban residence.

The findings of the study sample shows that highest percentage (50%) had hepatitis B & hepatitis C in the past of medical history and (48%) of the study sample hadn't family history for any disease.

These findings were in good agreement with that obtain by other researcher who stated the most common etiologic factors for their cirrhosis was hepatitis B & C⁽¹⁶⁾.

This result agrees with that of the other researcher who reported that most common causes of liver cirrhosis in united states is Hepatitis C (26%), Alcoholic liver disease (21%),

Hepatitis C plus alcoholic liver disease(15%),and hepatitis B ,which maybe coincident with hepatitis(15%)⁽¹⁷⁾.

The findings of the study sample indicated that there is significant between activities of daily livings with age.

It has been notices with changes in the cells, tissues, organs and organ system that tend to have an influence on body structure and function. Elderly people have chronic condition and associated function and cognitive limitations that require assistance with Activities of Daily Living (ADL) Today, more Assisted Living Facilities (ALF) are needed due to the number of healthier older people is increasing and with improved health care ⁽¹⁸⁾.

The findings of the study sample indicated that there is significant at level $p<0.01$ between activity of daily livings with residence, monthly income and type of housing this variable play important role in increase help needed to perform daily livings activities and everyday livings low income may restricted quality of healthy diet that may lack essential mineral, vitamins and protein to meet daily demand ,also unavailable necessary home appliances to prepared and stored foods, economic status effects on health environment at home due to unable to seal detergent and disinfection liquid to clean floor of home bathing,tolieting and chicken to killer microorganism to maintain he/she health, visiting hospital and doctor for follow up health condition .Type of housing monthly income and may be effect on psychosocial status that impair in daily activities ,ownership house which interrupted individual life such as social interaction ,physical function, culture status diet, social activity, hobbies and visit physician to follow up health condition for individual over all consequences every day activities and life span. Residence shows indicated is strong positive relationship with activity of daily livings , residence urban this mean increase need help with activity of daily livings, life in urban may limited daily activity for several reason include crowded, increase money spend ,air pollution and socioeconomic status these reason leading to decline daily activities such as running, bike drive, bathing ,diet habits and social interaction.

The findings of the study sample indicated that there is significant at level $p<0.01$ between activity of daily livings with marital status, marital status may be considered partial effects on daily activities, especially female in home management, responsibilities toward family and husband to available all needed for them this increase over load on individual's through life. There is negative moderate relationship between activities of daily livings with level of education

This mean whenever person increasing education level leading to decrease activity daily livings needed help and opposite low level of education increased need help with daily activities, education level play role in promote daily activities for example choose healthy diet to maintenance health ,avoid obesity and chronic disease that formed due to dietary habits, daily bathing improve blood circulation, maintain skin integrity and decrease infectious disease ,also daily exercise improve health, visit health care center, to follow-up to maintain health status for person and family .

CONCLUSIONS:-

Our data indicate that the activity of daily living of patients with liver cirrhosis is moderate decline in all domains of activities of daily livings.

RECOMMENDATIONS:

1. Establishing of a special department in all teaching hospitals called nutrition and prevention therapy to provide guidance and advice for patients who attending to the center to improve the health status of the patient and the activities of daily life.
2. An educational program for liver cirrhosis patients and family to identify complications arising from the disease and how to prevent them.
- 3- Regular follow up with specialized digestive clinics and increase their confidence in managing of hepatic cirrhosis
- 4- Educational program for families of patients and all employees in the health institutions and how to prevent infection from hepatitis.

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