KNOWLEDGE, ATTITUDE AND PRACTICE OF HEPATITIS C PATIENTS TOWARDS HEPATITIS "C", EL-MINIA GOVERNORATE, EGYPT

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ABSTRACT:

Aim: To identify the current status of knowledge, attitude and practice towards hepatitis C virus (HCV) infection among hepatitis C (HC) patients.

Material and methods: This cross-sectional hospital based study was carried out including all patients attending the interferon unit, El-Minia in the period from 1st of June to 30th of August, 2011. A questionnaire was administered. A scoring system was designed for assessment of patients' knowledge, attitude and practice about HCV. The probability of less than 0.05 used as a cut off point for all significant tests.

***Result*s**: 62.6% of patients answered that HCV could cause complications, 65.8% knew that interferon could completely cure HCV, 86.5% of the patients knew that HCV could be transmitted by injection, 59.9% of patients disagreed that herbs could replace drugs in treatment of HCV, 78.4% agreed to maintain ideal weight and 66.2% agreed to perform exercise. 99.4% took their medications regularly, 98.1% did the requested investigations regularly.

HCV knowledge scores were moderately adequate, attitude scores were mainly positive and practice scores were mainly fair.

Conclusion: The results of this study showed that there is a need to conduct education programs regarding the ways of transmission of HCV and importance of its screening.

KEYWORDS:

HCV El-Minia Knowledge
Atitude Practice.

INTRODUCTION :

Chronic HC is an infectious disease caused by HCV.[1] Estimates of HCV prevalence in Egypt range from 11% to 14%, with 8 to 10 million having anti-HCV and 5 to 7 million having active infections.[2]

As regards risk factors for development of HCV infection in Egypt, age, male sex, parenteral therapy for schistosomiasis, blood transfusion, invasive medical procedures, injections, circumcision of boys by "informal" health care providers, and complicated birth deliveries were all risk factors for HCV.[3-6]

HCV infections congregated within families, with children being at increased risk if their parents were infected and spouses being at greater risk if their partner was infected, particularly in the case of husbands with HCV infected wives.[7]

The burden of disease caused by HCV in Egypt is significant and it will remain for some time Egypt's most pressing public health issue. In Egypt, liver mortality, including liver cirrhosis and cancer, is over 40,000/ year and is increasing annually.[8]

For all those reasons a strategy has been elaborated in concert with the Egyptian National Committee on Viral Hepatitis and in consultation with officials from the Ministry of Health and Population, the Ministry of Higher Education, various U.N. agencies and the WHO (Geneva and Cairo), as well as researchers at Egyptian universities and other local and international stakeholders involved in the fight against viral hepatitis. The National Control Strategy includes a number of overreaching goals that are designed to structure the national response and set benchmarks to measure its successful implementation. In order to achieve these goals, the necessary interventions are outlined under a set of four priority areas: 1) surveillance & monitoring, 2) prevention, 3) patient management, and 4) research.[8]

Given the importance of HCV problem in Egypt, the proper estimation of the knowledge, attitudes and practices of HCV patients towards HCV becomes a necessity in order to set up the suitable programs for patients management and follow up. Information on current awareness of patients about hepatitis C virus (HCV) may help health care planners to correct the false fixed beliefs about HCV and its treatment. This is in turn can decrease the transmission of virus and encourage patients compliance with treatment.

METHODS:

It was a cross-sectional hospital based study that was carried out in the interferon unit in Samalot city, EL-Minia governorate in Upper Egypt, 234 Km south to Cairo, Egypt.

AIM OF THE STUDY:

To identify the current status of knowledge, attitude and practice towards HCV among all patients with HCV-infection attending the interferon unit in the one-day surgery hospital in Samalot city, from the 1st of June to the 30th of August, 2011. They were 222 patients.

A questionnaire was designed and applied on 20 patients as a pilot study to test the questionnaire. No modifications were required so the pilot sample was included in the study.

The questionnaire included sociodemographic data; age, sex, educational level and occupation of patients with HCV and questions about knowledge of HCV therapy, natural history of HCV infection, ways of transmission of HCV and the risk of developing HCV-related advanced liver disease (i.e., cirrhosis and liver cancer). It also included questions about the patients' attitudes and practice towards HCV, the degree of consideration of treatment and the barriers to treatment access.

The questionnaire was administered in the form of interview schedule. A scoring system was designed for assessment of patients' knowledge, attitude and practice towards HCV. Twelve questions were designed for knowledge, seven questions for attitude and seven questions for practice.

Regarding knowledge, one degree was allocated for each right answer while in questions 3, 6 and 7, two degrees were awarded for getting all the answers right and one degree awarded for getting the answers partially right. Therefore, knowledge scores were on a scale of 0 – 15.

On the other hand, two degrees were awarded for the positive attitude, one degree for undecided one and zero

for negative one, hence, attitude scores were on a scale of 0 – 14 .

With regard to practice, one degree was awarded for the positive one so practice scores were on a scale of 0 – 7. The scoring system designed for patients under treatment was slightly different from the score designed for patients under assessment. This difference was resided in the practice section of the questionnaire as there were only four questions for practice of the under assessment patients so practice scores were on a scale of 0–4. Three scoring levels were determined[9]:

1. For knowledge:
- Poor knowledge <6 degrees
- Fair knowledge 6-9 degrees
- Good knowledge 10 or more degrees

2. For attitude:
- Negative attitude <3 degrees
- Undecided 3-5 degrees
- Positive attitude 6 or more degrees

3. For practice:
- Poor practice <3 degrees
- Fair practice 3-5 degrees
- Good practice 6 or more degrees

Data entry and analysis were done using Statistical Package for Social Science (SPSS) for windows version 11 and microstats program. The probability of less than 0.05 was used as a cut off point for all significant tests.

Ethical approval: The study protocol had been approved by the standard ethics of El-Minia University ethical committee for human experimentation. Individual informed consent was obtained from all participants

RESULTS:

This study included 222 patients with hepatitis C attending interferon unit in Samalot city from the 1st of June to the 30th of August 2011, the age of the patients ranged between 19-64 years (mean age was 40.3±10.49). There were 167(75.2%) males and 55 (24.8%) females.

It was found in table (1) that 80.2% of total patients lived in rural area, 41.9% of patients didn't work and 42.3% of patients were illiterate. Regarding the residence, 87.3% of females versus 77.8% of males lived in rural area, as regard illiteracy, 78.2% of females versus 30.5% of males were illiterate.57% of females versus 43% of males were non worker and these differences were statistically signify-cant as regard the educational level and occupation (p=0.0001) but not for residence (p=0.1).

Table (2) showed that 62.6% of patients answered that HCV could cause complications, 37.8% answered that they could be re-infected with HCV after cure, 35.1% said that there was a vaccine for HCV, 65.8% knew that interferon could completely cure HCV and 81.1% said that ribavirin capsule was very important. Also, this table showed that 86.5% of the patients knew that HCV could be transmitted by injection, while 22.1% answered that HCV could also be transmitted by intercourse, 51.8% and 40.5% answered that HCV could be transmitted by air or by food and drink respectively and 33.3% answered that HCV could be transmitted from mother to fetus.

Table (3) showed that 59.9% of patients disagreed that herbs could replace drugs in treatment of HCV, 78.4% agreed to maintain ideal weight and 66.2% agreed to perform exercise. 18.5% disagreed that caring of the disease will delay occurrence of

complications, 16.7% disagreed to eat special diet, 42.8% agreed to undergo surgery and only 6.8% of patients didn't believe that special food can affect the liver function.

Table (4) showed that the majority of the patients under treat-ment (99.4%) took their medic-ations regularly, 98.1% did the required investigations regularly and keeping normal weight was done by 87% of the patients. Performance of physical activity by 46% and disclosure of HCV infection by 89.4%, nearly half of patients performed liver function tests every 6 months (49.1%) and 75.2% did viral load. Also it showed that the majority of the patients under assessment (95.1%) disclosed about their infection, 54.1% performed physical activity, 78.7% maintained normal weight and only (26.2%) did liver function tests every 6 months.

Table (5) showed that HCV knowledge scores on a scale of 0 – 15 were moderately adequate among both patients under treatment and those under assessment and the difference was statistically insignificant, attitude scores on a scale of 0 – 14 were mainly positive and the difference was statistically insignificant and practice scores were mainly fair among both patients under treatment and those under assessment and this difference was statistically significant .

Table (6) showed that the majority of patients took their infor-mation from their doctors (62.6%, p=0.00006).

Table (1): Sociodemographic characteristics of the studied HCV patients in the interferon unit in Samalot city, June to August 2011

Socio-demographic characteristics		male NO (%)	female NO (%)	Total NO (%)	X2 DF (P)
residence	**rural**	130 (77.8%)	48 (87.3%)	178 (80.2%)	2.3 1 (0.1)
	urban	37 (22.2%)	7 (12.7%)	44 (19.8%)	
occupation	**Don't work**	40 (43%)	53 (57%)	93 (41.9%)	89.6 3 (0.0001)*
	farmer	53 (31.7%)	0	53 (23.9%)	
	employee	29 (17.4%)	2 (3.6%)	31 (14%)	
	Free worker	45 (26.9%)	0	45 (20.3%)	
Educational level	**illiterate**	51 (30.5%)	43 (78.2%)	94 (42.3%)	38.9 4 (0.0001)*
	Read and write	37 (22.2%)	5 (9.1%)	42 (18.9%)	
	2ndry	56 (33.5%)	6 (10.9%)	62 (27.9%)	
	university	22 (13.2%)	1 (1.8%)	23 (10.4%)	
	Above university	1 (0.6%)	0	1 (0.5%)	
Total		167 (100%)	55 (100%)	222 (100%)	

* Statistically significant

Table (2): Knowledge about HCV among the studied HCV patients in the interferon unit in Samalot city, June to August 2011

Item	knowledge			Total
	yes	No	Don't know	
HCV can cause complications	139 (62.6%)	13 (5.9%)	70 (31.5%)	222 (100%)
Patients can be re-infected after cure	84 (37.8%)	28 (12.6%)	110 (49.5%)	222 (100%)
HCV can be symptomless	126 (56.8%)	57 (25.7%)	39 (17.6%)	222 (100%)
Presence of vaccine for HCV	78 (35.1%)	79 (35.6%)	65 (29.3%)	222 (100%)
Interferon can completely cure from HCV	146 (65.8%)	14 (6.3%)	62 (27.9%)	222 (100%)
Relation between viral load and occurrence of complications	139 (62.6%)	39 (17.6%)	44 (19.8%)	222 (100%)
Importance of ribavirin capsule	180 (81.1%)	6 (2.7%)	36 (16.2%)	222 (100%)
Mode of transmission				
Injection	192 (86.5%)	7 (3.2%)	23 (10.4%)	222 (100%)
Intercourse	49 (22.1%)	87 (39.2%)	86 (38.7%)	222 (100%)
air	31 (14%)	115 (51.8%)	76 (34.2%)	222 (100%)
Mother to fetus	74 (33.3%)	55 (24.8%)	93 (41.9%)	222 (100%)
Food and drink	64 (28.8%)	90 (40.5%)	68 (30.6%)	222 (100%)

Table (3): Attitude of studied HCV patients in the interferon unit in Samalot city, June to August 2011

Item	Attitude			Total
	Agree	Disagree	Undecided	
Herbs can replace drugs	36 (16.2%)	133 (59.9%)	53 (23.9%)	222 (100%)
Maintenance of normal weight is important	174 (78.4%)	28 12.6%)	20 (9%)	222 (100%)
Performance of physical activity is useful	147 (66.2%)	44 (19.8%)	31 (14%)	222 (100%)
Take care prevent or delay complications	146 (65.5%)	41 (18.5%)	35 (15%)	222 (100%)
Eating a special diet is preferred	180 (81.1%)	37 (16.7%)	5 (2.3%)	222 (100%)
Undergoing surgical operation isn't recommended	95 (42.8%)	89 (40.1%)	38 (17.1%)	222 (100%)
Special food staff worsen the liver condition	188 (84.7%)	15 (6.8%)	19 (8.6%)	222 (100%)

Table (4): Practices of the studied HCV patients in the interferon unit in Samalot city, June to August 2011

Practices of patients who were under treatment	Do the practice	Don't do the practice	Z	P
	No (%)	No (%)		
Taking medication regularly	160 (99.4%)	1 (0.6%)	8.6	0.0003*
Do investigation regularly	158 (98.1%)	3 (1.9%)	8.7	0.0001*
Maintain normal weight	140 (87%)	21 (13%)	7.5	0.0002*
Performance of physical activity	74 (46%)	87 (54%)	1.01	0.1
Disclosure of HCV infection	144 (89.4%)	17 (10.6%)	7.8	0.0002*
Do viral load	121 (75.2%)	40 (24.8%)	7.4	0.0007*
Do liver function tests every 6 months	79 (49.1%)	82 (50.9%)	0.22	0.4
Practices of patients who were under assessment				
Maintain normal weight	48(78.7%)	13 (21.3%)	5.6	0.0001*
Performance of physical activity	33 (54.1%)	28 (45.9%)	0.6	0.2
Disclosure of HCV infection	58 (95.1%)	3 (4.9%)	5.2	0.0008*
Do liver function tests every 6 months	16 (26.2%)	45 (73.8%)	3.3	0.0003*

* statistically significant

Table (5): Knowledge, attitude and practice scores among the studied patients with hepatitis C in interferon unit in Samalot city, June to August 2011.

Knowledge score	Patients with hepatitis C		Chi-square	P-value
	Patients under treatment No. (%)	Patients under assessment No. (%)		
Poor (<6)	33 (20.5%)	19 (31.1%)	3.1	0.2
Fair (6-9)	92 (57.1%)	32 (52.5%)		
Good (≥10)	36 (22.4%)	10 (16.4%)		
Attitude score				
Negative (score< 3)	4 (2.5%)	1 (1.6%)	0.7	0.7
Undecided (score 3-5)	39 (24.2%)	18 (29.5%)		
Positive (score >5)	118 (73.3%)	42 (68.9%)		
Practice score				
Poor (score< 3)	1 (0.6%)	24 (39.3%)	94.5	0.0001*
Fair (score 3-5)	72 (44.7%)	37 (60.7%)		
Good (score >5)	88 (54.7%)	0.0 (0.0%)		
Total	161 (100%)	61 (100%)		

* statistically significant

Table (6): Frequency of source of information about HCV among the studied patients with hepatitis C in interferon unit in Samalot city, June to August 2011

source of information about HCV	Yes		No		Total	Z	P
	No.	%	No.	%			
media	28	12.6	194	87.4	222	1.5	0.06*
doctor	139	62.6	83	37.4	222	10.2	0.00006*
Own knowledge	39	17.6	183	82.4	222	1.06	0.1
More than one source	16	7.2	206	92.8	222	1.6	0.05*

* statistically significant

DISCUSSION:

False knowledge of the presence of HCV vaccination was 35.1% as shown in (table 2). This was higher than what was reported by Ashri, 2008 who found that knowledge of presence of vaccination was (22.5%).[10]

Knowledge that HCV- infection could be symptom-less was 56.8% as shown in (table 2) compared to 76% as reported by Doab et al., 2005 who studied Knowledge and attitudes towards HCV treatment and barriers to treatment among current injection drug users in Australia.[11]

Knowledge that the patient could be re-infected after cure was only among 37.8% of patients and this was lower than what was reported by Balfour et al., 2009 who studied increasing public awareness about hepatitis C and found that 64% of the participants knew that the patient could be re-infected after cure.[9]

Knowledge that HCV medications can completely cure the infection was 65.8% (table 2) and it was higher than reported by Doab et al., 2005 who found that only 42% of participants believed that treatment for HCV-infection could be curative.[10] Also higher than reported by khan et al., 2010 who found that only 13.1% of participants believed that treatment for HCV-infection could be curative.[12]

In this study, it was found that 86.5% of patients with HCV infection answered that HCV is transmitted by injection. This was the same as found by Salahuddin et al., 2010 who studied knowledge of patients attending free hepatitis clinic at Civil hospital Karachi about HCV and HBV and found that 81% of patients knew that HCV can be transmitted by injection.[13]

The results showed that about 60% of the patients disagreed with the notion that herbs could replace interferon and ribavirin (table 3). This was considered as a positive attitude and could be explained by recruitment of these patients from a specialized center for interferon therapy with frequent exposure to health education by the treating physicians. The fact that herbs have no effect on HCV-infection was reported by Seeff et al., 2008 who studied Herbal product use by persons enrolled in the Hepatitis C Antiviral Long-Term Treatment Against Cirrhosis (HALT-C) Trial and found that neither HCV RNA nor serum ALT-virological and biochemical markers of virus activity and hepatic inflammation- were improved in those taking herbals, particularly silymarin, when compared with those who had never used Herbal products.[14]

This study also revealed that 78.4% of the patients with HCV agreed to maintain normal weight (table 3) and this could be explained by patients' knowledge about the fact that the interferon response declines with the increase in body weight.[15-17]

As regard attitude to do exercise, it was found that only 19.8% of the studied patients disagreed to do it compared to what reported by khan et al., 2010 who studied effect of gender and age on knowledge, attitude and practice regarding HCV among medical students of Karachi, Pakistan and found that 45.9% of males and 50.8% of females disagreed to do exercise.[12]

As regard, the practices (table 4), the study showed that 99.4% complied very well with their medication and this could be explained by many reasons: firstly those patients were motivated by their doctors to take

the medication regularly for fear of occurrence of complications as ascites, liver cancer and so on, secondly the patients take the medications under supervision of the doctors at the interferon unit and not at home so this helps the patients' compliance and lastly the treatment offered free for the patients encouraging them to take the treatment regularly.

This study showed that patient's HCV knowledge scores on a scale of 0 – 15 were moderately adequate. This was the same as found by Salahuddin et al., 2010 who studied knowledge of patients attending free hepatitis clinic at Civil hospital Karachi about HCV and HBV and found that patients' knowledge was moderate.[13]

In this study, it was found that the 62.6% of patients took their information from their doctors while only 12.6% from media (table 6) and it was lower than reported by Ashri et al., 2008 who found that 32.5% of dental patients took their information from media.[9]

CONCLUSION:

The results of this study showed that:

1- There is a need to Constitute systemized orientation groups or education programs taking into account the characteristics of the target population, considering age, educational level and other socio-demographic factors, regarding the importance of HCV screening and increase their knowledge of the hazards of possessing the infection and ways of transmissions.

2- Awareness programs regarding hepatitis C at school level should be started to save the future generation.

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معلومات و اتجاه و ممارسة مرضى الالتهاب الكبدى ج تجاه الالتهاب الكبدى ج، محافظة المنيا، مصر، 2011

الهدف: التعرف على الحالة الحالية للمعلومات، الاتجاه والممارسة تجاه العدوى بالالتهاب الكبدى ج لدى مرضى الالتهاب الكبدى.
المرضى و طرق البحث: هذه دراسة مقطعية وقد شملت الدراسة كل المرضى المترددين على وحدة الانترفيرون فى المنيا فى الفترة من أول يونيو إلى 30 أغسطس 2011. وقد تم عمل استبيان ونظام ترقيم لتقييم معلومات واتجاهات و ممارسات المرضى عن الالتهاب الكبدى ج. التحاليل الاحصائية تعتبر ذات دلالة احصائية عند $P< 0.05$
النتائج: أجاب 62% من المرضى أن الالتهاب الكبدى ج يمكن أن يسبب مضاعفات، وعرف 65.8% منهم ان الانترفيرون يمكنه شفاء الالتهاب الكبدى ج تماما، كما عرف 86.5% منهم أن الالتهاب الكبدى ج يمكن أن ينتقل بواسطة الحقن، لم يوافق 59.9% أن الأعشاب يمكن أن تحل محل الأدوية فى علاج الالتهاب الكبدى ج، وافق 78.4% أن يحافظوا على الوزن المثالى كما وافق 66.2% أن ممارسة الرياضة و اتضح أن 99.4% يأخذون أدويتهم بشكل منتظم و98.1% منتظمين فى عمل التحاليل المطلوبة.
وقد تبين أن ترقيم المعلومات كان متوسط أما ترقيم الممارسات فكان منخفض وكان ترقيم الاتجاه إيجابى
الخلاصة: أوضحت نتائج هذه الدراسة أن هناك احتياج لعمل برامج تعليمية بطرق انتقال الالتهاب الكبدى ج وأهمية الاكتشاف المبكر.
الكلمات الدالة: الالتهاب الكبدى ج- المنيا- معلومات- اتجاه- ممارسة.