

POSTER PRESENTATIONS

PO-1193

Lifestyle changes after cured Hepatitis C patients and adherence of a nurse-led liver cancer screening program

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Background and aims: The eradication of hepatitis C virus (HCV) doesn't abolish the risk of hepatocellular carcinoma (HCC) development. Several factors are associated to it after achieving sustained virological response (SVR). Our aim is to describe lifestyle changes in patients with SVR after direct antiviral agents (DAA) and evaluate their adherence to a nurse-led HCC screening program.

Method: Single-centre, observational and prospective study. The screening program started within the 1st month of SVR and includes: ultrasound, laboratory, anthropometric measurements and questionnaires on lifestyle habits. All these procedures were done by the nurse and physician every 6 months until cancer development, death or lost to follow-up. This first analysis evaluated patients until the 4th year of follow-up.

Results: We included 182 patients, 2 of them were lost before the first US. The 180 analyzed patients were: males (51.6%), 65.9% were cirrhotic and 92.5% of them Child-Pugh A. Median body mass index (BMI) was 27.1 [24.9–29.6] and the waist-hip ratio 0.94 [0.89–1] in men and 0.84 [0.79–0.88] in women at the time of SVR. 19.2% of patients were smokers, 30.8% consumed alcohol, 48.8% coffee and 54.9% did physical activity at baseline. During the 54.7 [49.9–58.2] months median follow-up, 9 patients developed HCC (all were cirrhotic). Median time to HCC development was 30.7 [24.5–35.9] months. A total of 19 patients out of the 21 with cancer (7 out of 9 HCC and 11 out of 12 other cancers) had a baseline BMI >24. A significant increase in BMI [0.2 (CI95%: 0.02–0.38)] at 6 months was observed and this change was maintained in the following time-points.

There wasn't a significant change in coffee consumption but a trend for increasing physical activity was registered at 2 and 3 years of follow-up ($p=0.08$ and 0.09 , respectively). A significant increase in alcohol consumption in the same time intervals ($p=0.007$ and $p=0.02$; respectively) was observed, while the number of patients who didn't answer the alcohol related questions increased from 2.7% to 10.3% at 3 years of follow-up.

The adherence to the HCC screening program at 6 months, and 1, 2, 3 and 4 years were 98%, 97%, 92%, 90% and 80%, respectively.

Conclusion: The adherence to the nurse-led liver cancer screening program was very high. We observed an increase in the physical activity but also an increase of alcohol consumption and BMI which may represent an additional risk factor for HCC development at long term.

PO-1221

Importance of a clinical pharmacist specialized in hepatitis C treatment for the management of potential drug-drug interactions in a multidisciplinary ECHO® hepatitis C expert team

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Background and aims: ECHO® CHUM hepatitis C program was launched in 2017. This "hub and spokes" model enables linking of an interdisciplinary hepatitis C virus (HCV) expert team with community-based healthcare professionals. De-identified clinical cases are presented during teleclinics. A clinical pharmacist specialized in HCV treatment is part of the ECHO® expert panel. We sought to evaluate the prevalence and severity of potential drug-drug interactions (DDIs) between direct-acting antivirals (DAAs) and co-medications in cases discussed throughout the program.

Method: Cases presented between April 2017 and March 2020 were included. Data were collected prospectively using case presentation forms and recommendations issued by the hub. Occurrence and severity of potential DDIs for each available DAA regimen were determined using two online interaction checkers. Cases were excluded in case of missing information on co-medications. Subgroup analyses were done using the Chi-square test.

Results: Overall, 75 cases were discussed during the study period and 73 patients were included. Most patients (77%) were past or active intravenous drug users or had a psychiatric illness (56%). The median number of comedications per patient was 4 and 36 (49%) patients were on at least five drugs. In total, 49 patients (67%) were at risk for at least one potential DDI with any available DAA, including 13 (18%) taking contraindicated comedications. Patients on five or more drugs had a higher likelihood of DDI with any DAA (92% (95%CI 78–98) vs. 45% (95% CI 30–63); $p<0.0001$). Nevertheless, the number of potential DDIs per antiviral regimen was low (less than 16%). Among the 139 different comedications in the study, 24 (17%) could present a potential DDI with any DAA regimen while 6 (4%) were identified as contraindicated. Drugs most frequently involved with DDIs were proton pump inhibitors, antipsychotics, statins and antiretrovirals. Out of the 63 pharmacological interventions from the hub, 41% pertained to the management of DDIs, while 29% and 18% of recommendations regarded comorbidities and adverse events/adherence respectively.

Conclusion: Assessment of DDIs is key in HCV care. Most cases discussed in this ECHO® program led to various pharmacological recommendations. A pharmacist with clinical expertise in HCV treatment should be part of the interdisciplinary expert ECHO® team. As most DDIs can be managed, they should not be a barrier to the initiation of HCV treatment.

PO-1353

Randomized controlled study: investigation of the effect of exercise on liver function tests, fatigue and quality of life in patients with liver cirrhosis

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Background and aims: This randomized controlled study aimed to determine the effect of the exercise program to be applied in patients with cirrhosis on the patient's biochemistry parameters, quality of life, fatigue level, depression, and quality of sleep.

Method: The study population consisted of 84 patients, including the physical exercise group (PE, n = 27), the breathing exercise group (BE, n = 29), and the no intervention group (NI, n = 28). An exercise program (5 minutes warm-up, 30 minutes walking, 5 minutes cooldown) and a 10-minute breathing exercise were requested 7 days a week for 3 months in PE and BE patients, respectively. The patients were trained on how to perform the exercises and all the patients were followed up by phone calls on the exercise days and on the same days for the NI group to motivate the patients. Personal Information Form, 6-Minute Walking Test, Body Mass Index (BMI) Assessment Form, SF-36 Quality of Life Scale, Biochemistry Parameters Assessment Form, Child-Pugh Score Assessment Form, Beck's Depression Inventory, Fatigue Severity Scale, Pittsburgh Sleep Quality Index (PSQI) were completed by face-to-face interviews at the beginning and the end of the study period. Differences between the data at the onset and at the end within the groups were tested by the Wilcoxon test. Comparisons of the differences of the groups were performed with GLM repeated measures. SPSS (IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.) and R 4.0.2 software (R software, version 4.0.2, package: nparLD, R Foundation for Statistical Computing, Vienna, Austria; <http://r-project.org>) were used for the statistical analyzes.

		Baseline	Study end	p value
		$\bar{X} \pm SD$	$\bar{X} \pm SD$	
6MWT	PE	426,1±72,3	523,1±93,3	<0,001
	NI	453,6±54,3	433,6±69,4	
	BE	445,9±79,2	467,8±84,1	
LDH	PE	206,7±44,1	182,1±31,9	0,004
	NI	226,8±66,3	212,2±67,3	
	BE	200,4±58,5	199,9±55,6	
T.Protein	PE	73,2±6,1	75,1±4,7	0,05
	NI	72,1±7	73,4±7	
	BE	74±6,2	73,3±5,2	
Physical functioning	PE	80,6±20,4	97,6±6,1	<0,001
	NI	79,6±21,3	81,6±17,6	
	BE	79,7±20,7	90±18,4	
Role Physical	PE	66,7±48	85,2±36,2	0,035
	NI	82,1±39	67,9±47,6	
	BE	62,9±48,5	75±42,3	
Role Emotional	PE	54,3±49,9	70,4±46,5	0,038
	NI	75±44,1	50±50,9	
	BE	58,6±50,1	62,1±49,4	
Vitality	PE	49,1±21,8	74,3±19,8	<0,001
	NI	50±18,5	43,8±20,2	
	BE	50,2±16,2	64,7±20,7	
Mental Health	PE	60,9±15,9	79,1±13,7	<0,001
	NI	57,9±17,6	49,4±21,2	
	BE	64,1±17,4	72,7±16,1	
Social Functioning	PE	65,7±29,3	95,4±13,5	<0,001
	NI	78,6±17,6	75±26,1	
	BE	76,3±25,7	84,5±25,8	
Bodily Pain	PE	76,5±22,5	87±22,3	0,010
	NI	77,7±20,5	70,5±20	
	BE	71,9±28,6	80,2±23,8	
General Health	PE	54,6±20,2	72±21,1	<0,001
	NI	45±14,5	40,2±20,2	
	BE	53,4±16	63,8±21,3	
Fatigue Severity Scale Total Score	PE	4,2±1,4	2,5±1,4	0,002
	NI	4,3±1,3	4,3±1,4	
	BE	4,6±1,5	3,8±1,6	
Beck Depression Inventory Total Score	PE	32,7±9,4	25,8±8,2	<0,001
	NI	30,5±6,7	32,1±6,6	
	BE	34,4±13,5	27,5±6,6	
PSQI total score	PE	6,7±2,7	4±2,4	<0,001
	NI	6,8±3,1	6,8±2,8	
	BE	6,5±3	4,6±2,6	

Figure:

Results: As shown in the table, significant changes were found in some liver function tests, 6-MWT, all sub-dimensions of quality of life, total sleep quality scores, depression, and fatigue levels of the patients at the end of the study, comparing to the beginning of the study. Most of the positive effects were seen in the PE group, suggesting that PE has a favorable effect on the quality of life, well-being, sleep quality, and depression in cirrhotic patients.

Conclusion: Implementing non-pharmacological, inexpensive, and easily applicable exercise programs contribute positively to the management of patients with cirrhosis. Nurses should be trained to teach patients how to exercise and how to maintain an exercise program.

PO-1525

Nurse intervention optimizes the care of patients with hepatocellular carcinoma under systemic treatment

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Background and aims: Telephone visits have been part of Nurse Educational Programs for years and are a follow-up tool for liver cancer patients. This tool allows a fluid communication between the patient and the multidisciplinary team, as well as the early identification of treatment side effects, optimizing the management of patients. The aim of this study is to evaluate the impact of advanced practice nurse intervention (APN) managing unscheduled phone visits in patients with advanced hepatocellular carcinoma (HCC) in second and/or third line oral treatment.

Method: A retrospective, observational and descriptive study of patients who started second and/or third line treatment in a tertiary referral center (BCLC) from 01/2017 to 01/2020, and their phone calls received until 07/2020 or until discontinuation of treatment.

Results: Forty-one patients with advanced HCC started second or third line treatment; 20 of these patients received treatment with regorafenib and 23 with cabozantinib (2 patients received regorafenib in second line and later cabozantinib in third line). 408 phone calls were registered, 25% of which belonged to confinement period for COVID19 (March 14–June 21, 2020).

In our cohort (36% in regorafenib and 49% in cabozantinib), APNs resolved 100% of administrative consultations and 43% of phone calls related to health problems including potential toxicities of medication or cirrhosis decompensations. In second line cabozantinib patients, APNs resolved up to 73.5% of phone calls related to potential drug toxicity. In only 3.3% of phone calls related to health, patients were referred to the emergency department.

Conclusion: Telephone consultations managed by the APNs have a positive impact on the outpatient management of patients with HCC in systemic treatment and have been key to maintaining these treatments active during the COVID19 restrictions. The number of patients referred to the emergency department has been low, avoiding unnecessary saturation of the emergency services.