

Improvement of health-related quality of life (HQoL) after HCV treatment with direct acting antivirals (DAAs) in Georgia

Authors: Tinatin Abzianidze^{1,3}, Maia Butsashvili^{1,3}, Tina Kamkamidze², George Kamkamidze²

Affiliations: ¹ Health Research Union (HRU), Tbilisi, Georgia, ²Clinic NeoLab, Tbilisi, Georgia, ³University of Georgia, Tbilisi, Georgia

Background

HCV causes significant morbidity and mortality worldwide. About 80% of people infected with the hepatitis C virus live in low and middle-income countries. Based on 2015 serosurvey national HCV seroprevalence in Georgia was 7.7% with 5.4% being chronically infected (HCV RNA positive). Georgia has launched hepatitis C elimination national program in 2015, resulting in important decrease in HCV RNA prevalence (from 5.4% to 1.8%) according to the study conducted in 2021. Data are limited on the role of successful antiviral treatment in changing the quality of life among Georgian patients. The aim of this study was to determine health-related quality of life (HQoL) among HCV infected patients in Georgia achieving sustained viral load (SVR).

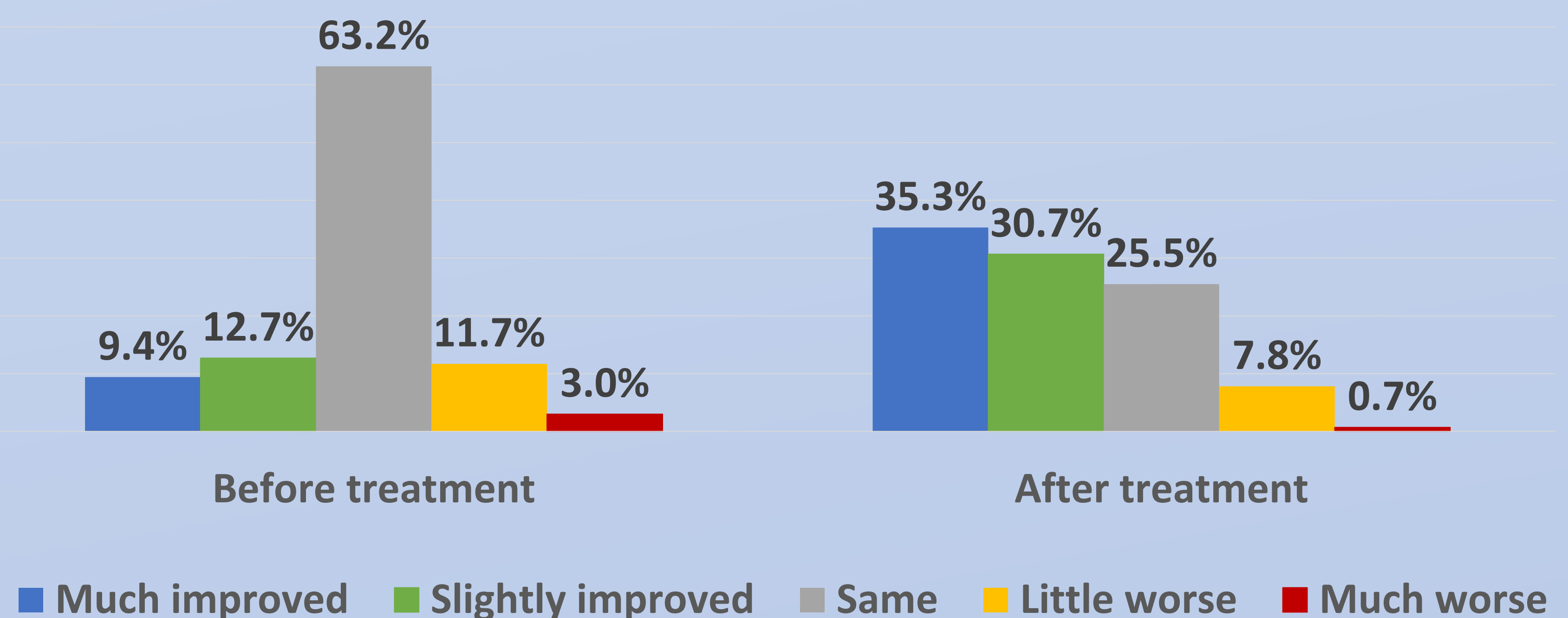
Material and methods

- We used a cohort design of an epidemiological study.
- 299 patients who were beneficiaries of the hepatitis C elimination program (HCV PCR or HCV Core Antigen positive patients) were selected by random sampling method. Questionnaire was developed to assess the quality of life of patients involved in the hepatitis C elimination program and evaluate the association of quality of life with the degree of liver fibrosis.
- The questionnaire included information on demographics (age, gender and residence) and health condition. Liver fibrosis level was measured by FIB4 score and liver elastography.
- SPSS (IBM) version 23 was used for data management and statistical analysis.
- Bivariate analysis was conducted to measure the association between the health related quality of life variables and the level of liver fibrosis.

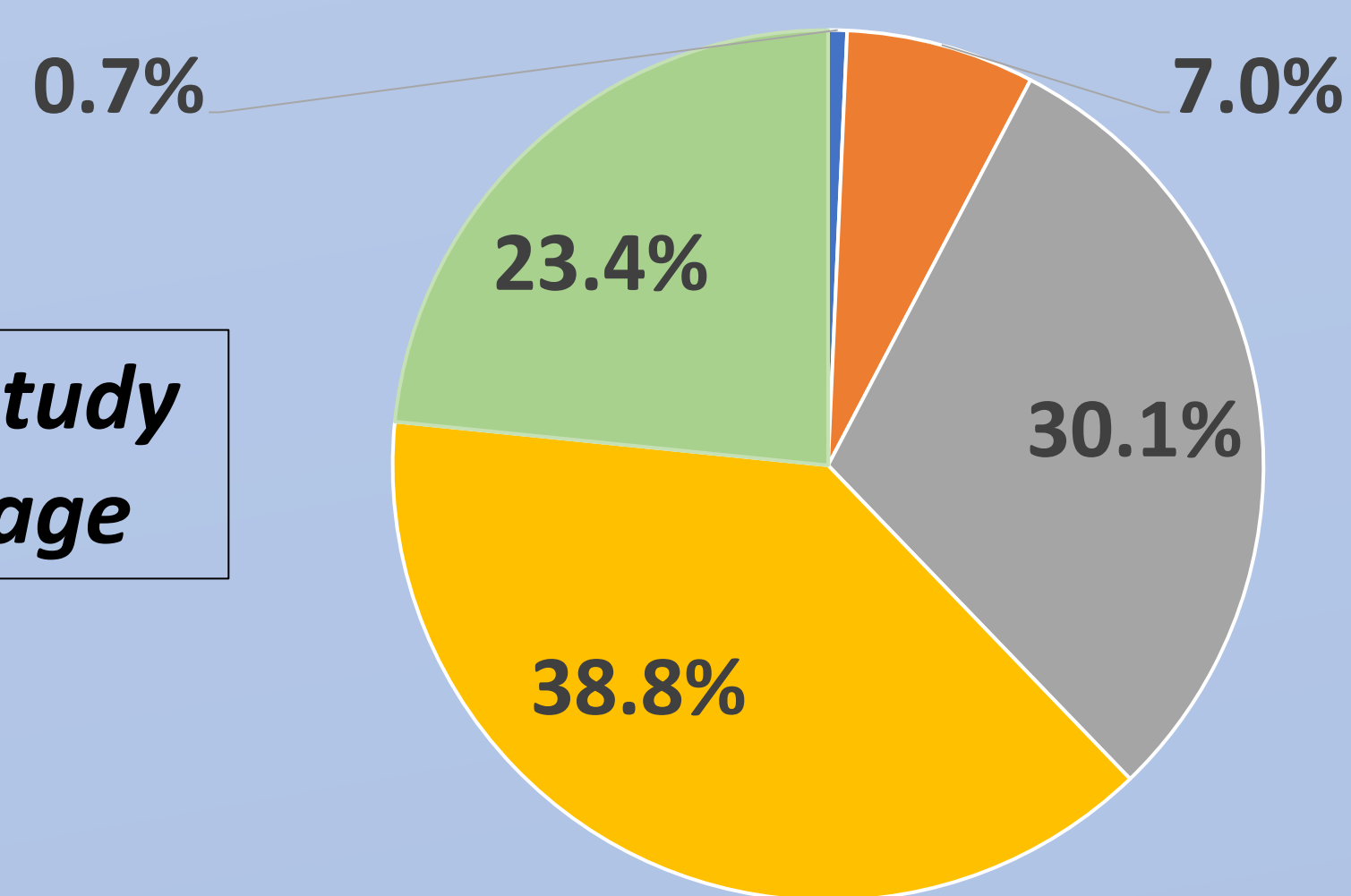
Results and discussion

- A total of 299 respondents were enrolled in the study. The mean age was 53 (age range 26-83) years.
- Most 244 (81.6%) were males.
- SVR test was done among 247 patients and achieved in 244 (98,79%). Respondents who did not complete the treatment or did not achieve SVR were excluded from the follow-up survey. 153 (62.7%) patients out of 244 achieving SVR agreed to participate.
- 294 (98.3%) participants reported that they had general weakness in the last two weeks before the start of the treatment with 62 (40.5%) after the treatment.
- After the treatment, self-perceived improvement of symptoms, such as lack of energy, abdominal pain, depression and worries that their health condition is getting worse, was observed.
- There was statistically significant improvement in liver fibrosis level (mean liver stiffness decreased from 21.5 kpa to 15.1 (p <0.0001)), ALT (from 116.3U/l to 27.6U/l (p <0.0001)) and AST (from 104.7U/l to 29.1U/l (p <0.0001)).

Changes of general health condition before and after treatment



Characteristics	Unit	Before treatment (mean)	After treatment (mean)	Mean difference	95% CI	p-value
Liver fibrosis	kPa	21.5	15.1	6.4	4.2-8.6	<0.0001
ALT	U/l	116.3	27.6	88.7	71.9-105.5	<0.0001
AST	U/l	104.7	29.1	75	63.0-88.2	<0.0001
PLTS	10 ⁹ /L	169.5	217.2	-47.7	-60.4- -35.1	<0.0001
BILL Total	mg/dl	1.07	0.72	0.34	0.03-0.66	<0.05
BILL Direct	mg/dl	0.4	0.33	0.07	-0.7-0.22	>0.05
Hb	g/dL	17.4	14.4	2.9	-0.12-6.12	>0.05
Spleen long	mm	121.6	141.4	-19.8	-52.5-12.9	>0.05
Spleen wide	mm	46.7	45.6	1.07	-0.5-2.6	>0.05



Distribution of study participants by age

Conclusion

After the successful DAA treatment, the overall self-perceived health status improvement has been observed among patients with chronic hepatitis C.

Contact:
tabzianidze@gmail.com