

Improvement in liver fibrosis among patients with hepatitis C who achieved sustained virologic response after direct acting antivirals treatment in Georgia (preliminary results)

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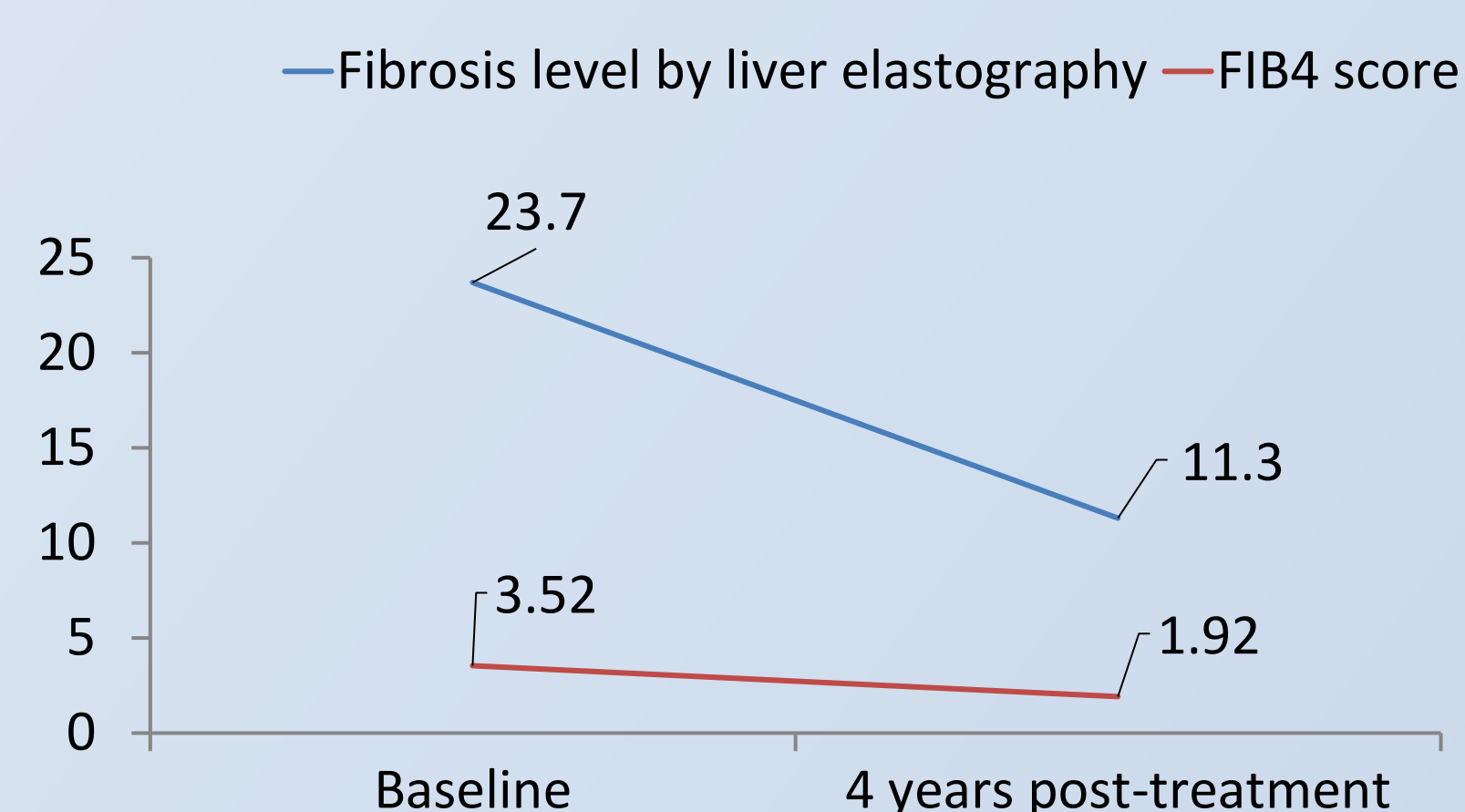
Background

In 2015, Georgia launched a national hepatitis C virus (HCV) elimination program. This study assesses changes in liver stiffness, biochemical, and clinical parameters in a cohort of HCV-infected patients with advanced liver fibrosis who were enrolled in the HCV elimination program and achieved sustained virologic response (SVR) after treatment with direct acting antivirals (DAAs).

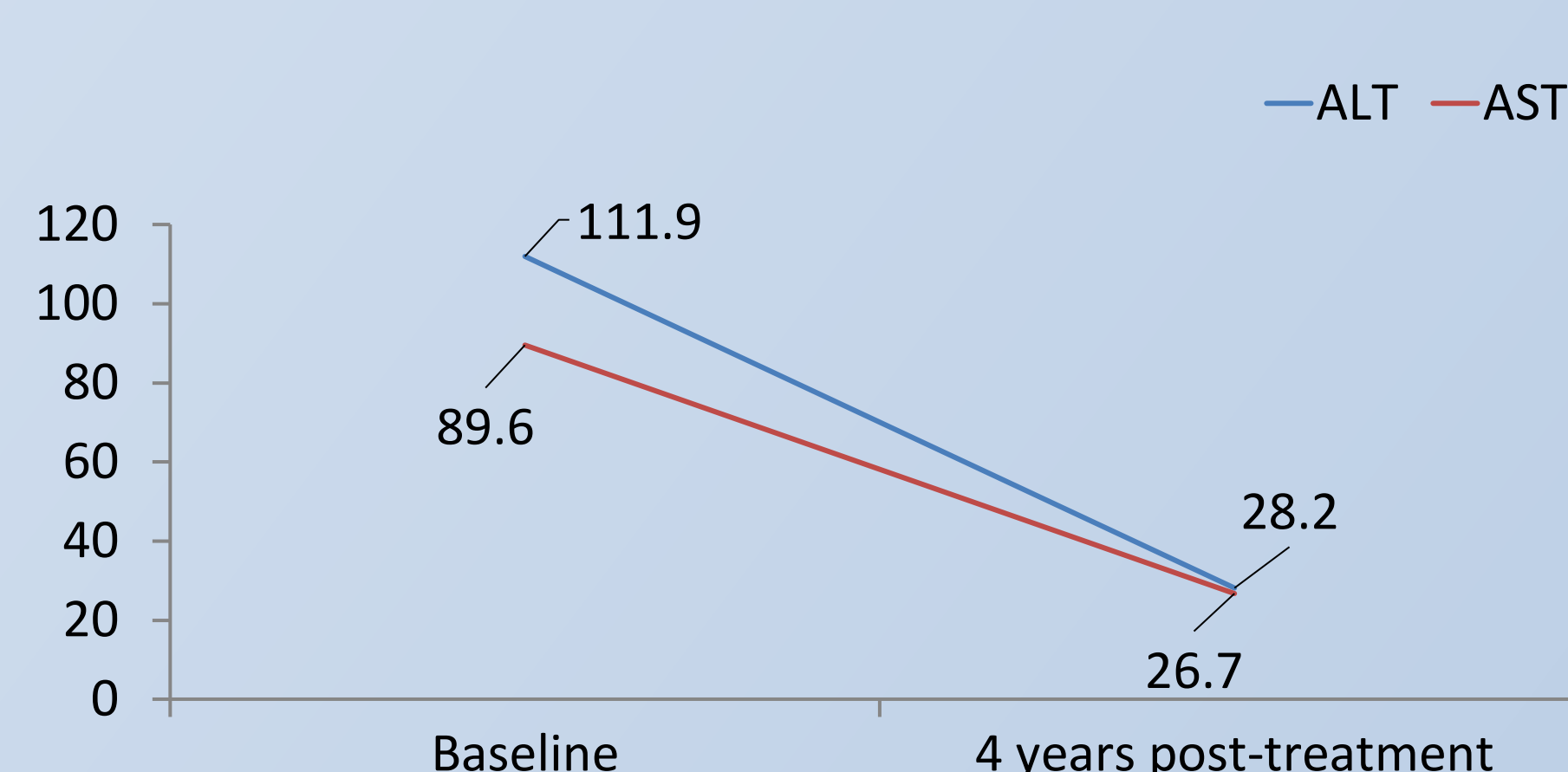
Methods

Our study cohort included patients aged ≥ 18 years with advanced liver fibrosis by elastography ($\geq F3$) or FIB4 score >3.25 , who were treated with DAAs and achieved SVR at 12–24 weeks post-treatment. A random sample was selected from clinics providing care and treatment to HCV patients. Baseline data (prior to initiating treatment) were abstracted from patients' medical records. Follow-up laboratory and clinical measures were collected at 4 years post-treatment.

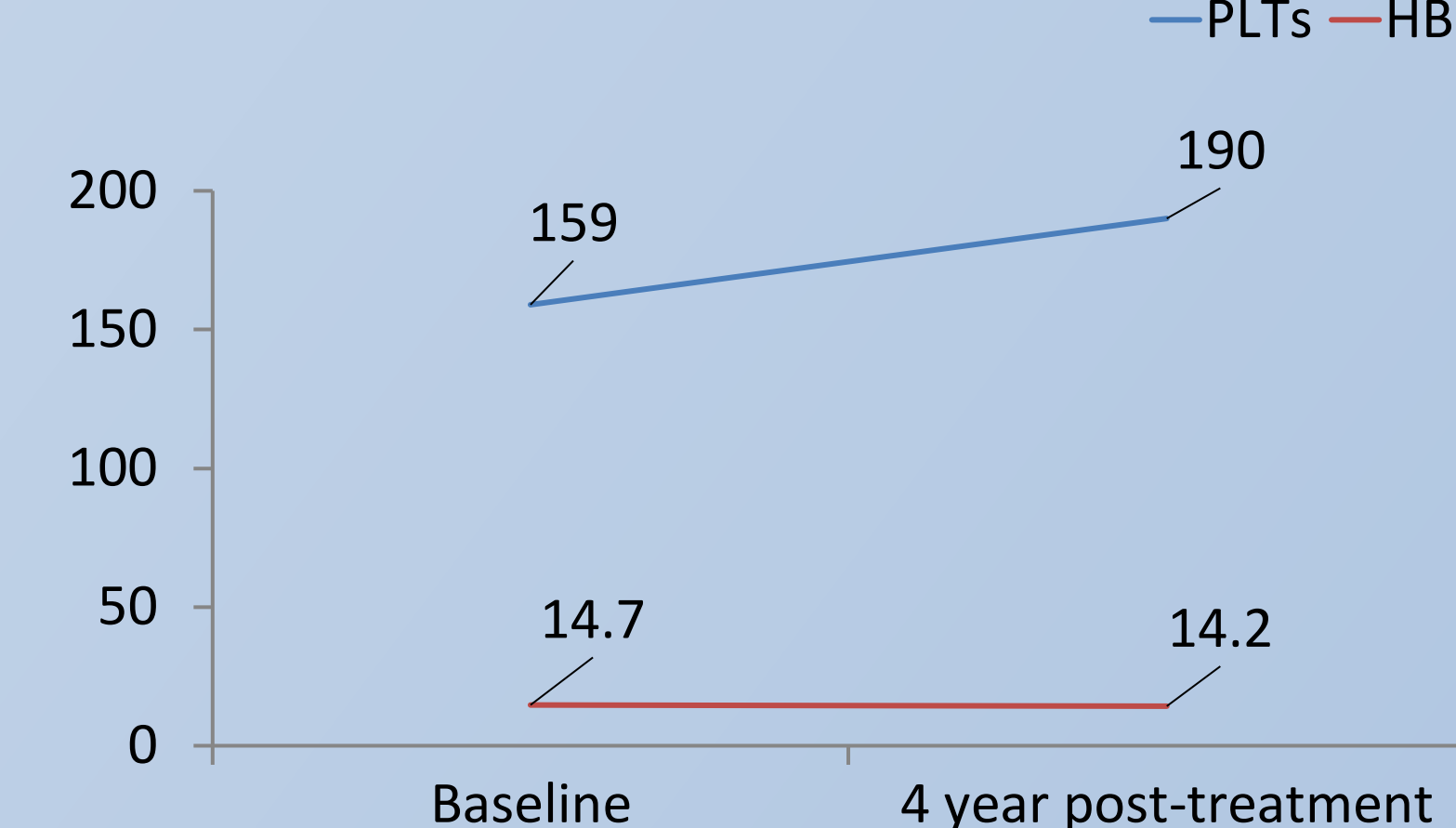
Changes in mean liver fibrosis level



Changes in mean serum ALT and AST levels



Changes in mean PLT count and HB level



Results

A total of 600 patients were included in the study. At 4 years post-treatment, mean liver stiffness decreased from 23.7 kPa to 11.3 kPa ($P < .001$). Mean FIB-4 score decreased by 1.6 (from 3.52 to 1.92) ($P < .001$). Mean ALT level decreased from 111.9 to 28.2 ($P < .001$) and mean AST level from 89.6 to 26.7 ($P < .001$). Platelet count increased from 159,200 to 190,500/ μL ($P < .001$). Hemoglobin levels increased by a mean of 0.3 g/dL ($P = .04$), and spleen length and width decreased by mean of 4.3 mm ($P < .01$) and 3.1 mm ($P < .001$), respectively. Among patients with ascites at baseline ($n=17$), 11 (64.7%) experienced resolution; for the majority ($n=583$) without ascites at baseline, 10 (1.7%) developed ascites during follow-up period. Four patients developed hepatocellular carcinoma between baseline and 4-year follow up visit.

Conclusions

Among patients with liver fibrosis, treatment with DAAs affords significant improvement in nearly all diagnostic markers and can lead to resolution of clinical symptoms of decompensated liver failure

Acknowledgements

This work was supported by Gilead Sciences, Inc. Grant N: 04577; National Foundation for the Centers for Disease Control and Prevention, Inc. Grant N: MOA 807-17 SC; and Shota Rustaveli National Science Foundation of Georgia Grant N: FR17_371.