LONG-TERM HEALTH OUTCOME AMONG HCV PATIENTS WITH ADVANCED LIVER FIBROSIS TREATED THROUGH THE HCV ELIMINATION PROGRAM

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Goal

- Evaluation of long-term treatment outcome among patients with advanced liver fibrosis treated with DAAs after achieving sustained viral response (SVR)

Objectives

- Follow a cohort of HCV-infected persons with advanced liver fibrosis enrolled in HCV Elimination Program to estimate:
  - Changes in liver fibrosis level
  - Changes in liver enzymes and PLT
  - The risk of decompensated liver cirrhosis

Participating clinics

- Neolab

- Infectious diseases clinic

- Hepa

- Mrcheveli

Methods

- Study cohort included patients who:

    - Completed full course of the DAA treatment through HCV elimination program in Georgia

    - Had advanced liver fibrosis level by elastography (≥F3) or FIB4 score (≥3.25)

    - Achieved SVR (measured at week 12-24 post treatment)

Methods

- Study cohort selected form patients enrolled in HCV elimination program in May-December, 2015

- First follow-up visits performed from Nov 2017 – June 2018 (~2 years after SVR achieved)

- Second follow-up visits started from May 2019 (~4 years after SVR achieved)

- Baseline data: extracted from medical records

- Follow-up data: prospectively collected

Methods

- Baseline and post treatment changes were evaluated:
  - Liver fibrosis level (in kpa or FIB4 score)
  - ALT
  - AST
  - PLTs
  - Spleen size
  - Presence of ascites

Results

Totally 600 patients had the first follow-up visit (2 years after achieving SVR)

Demographic characteristics of the sample

Characteristic	N	%
Age		
18 – 49	250	41.7
≥ 50	350	58.3
Gender		
Female	85	14.2
Male	515	85.8

Results

- Up to date 227 patients had second follow-up visit (4 years after achieving SVR)

- Mean age 51.9 (range 27-77 years)

- Males 84.6%

Results

Baseline clinical characteristics of the sample

Characteristic	N	%
Liver fibrosis		
F3	80	13.3
F4	450	75.0
Ascites		
Present	17	2.8
Not present	583	97.2

Results

Baseline clinical characteristics of the sample

Characteristic	Mean
FIB4 score	3.52
ALT	111.55 u/ml
AST	89.75 u/ml
HB	14.79 g/dL
PLTs	159 10^9/L
Spleen size	136X56 mm

Results

Changes in mean liver fibrosis level

— Fibrosis level by liver elastography   — FIB4 score

Data points:
- Fibrosis level by liver elastography: Baseline 23.89, First follow-up 15.26, Second follow-up 11.8
- FIB4 score: Baseline 3.52, First follow-up 2.11, Second follow-up 1.7

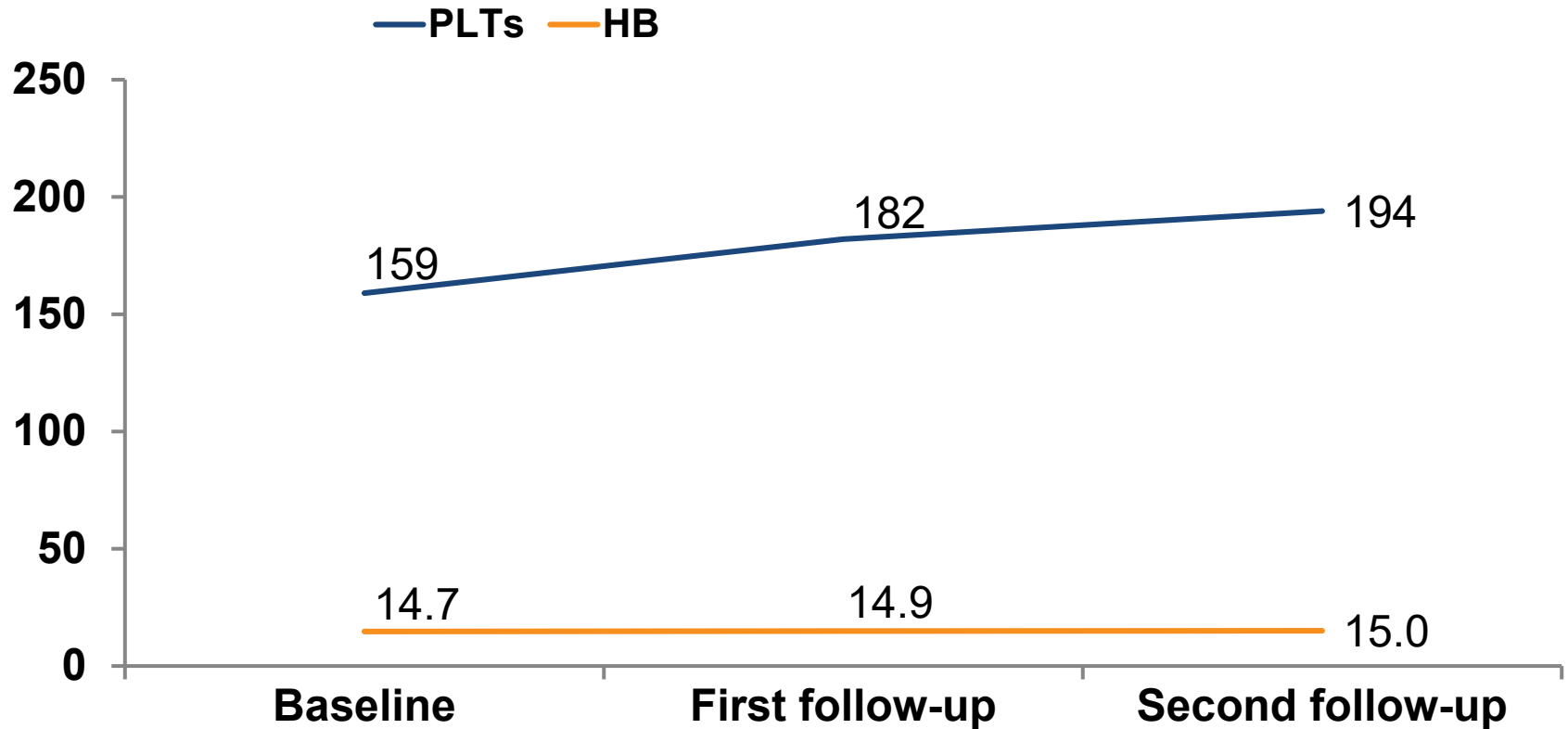X-axis: Baseline, First follow-up, Second follow-up
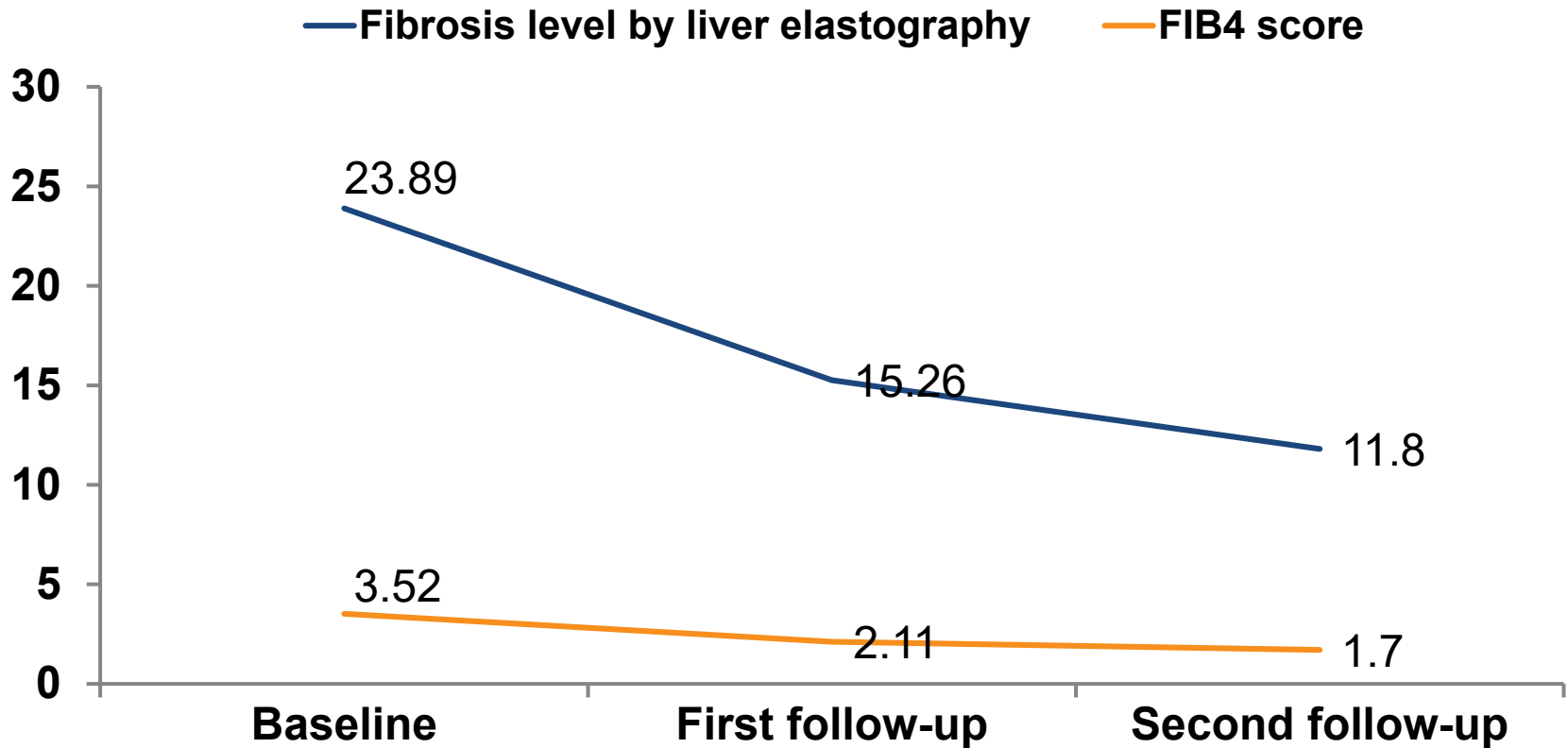
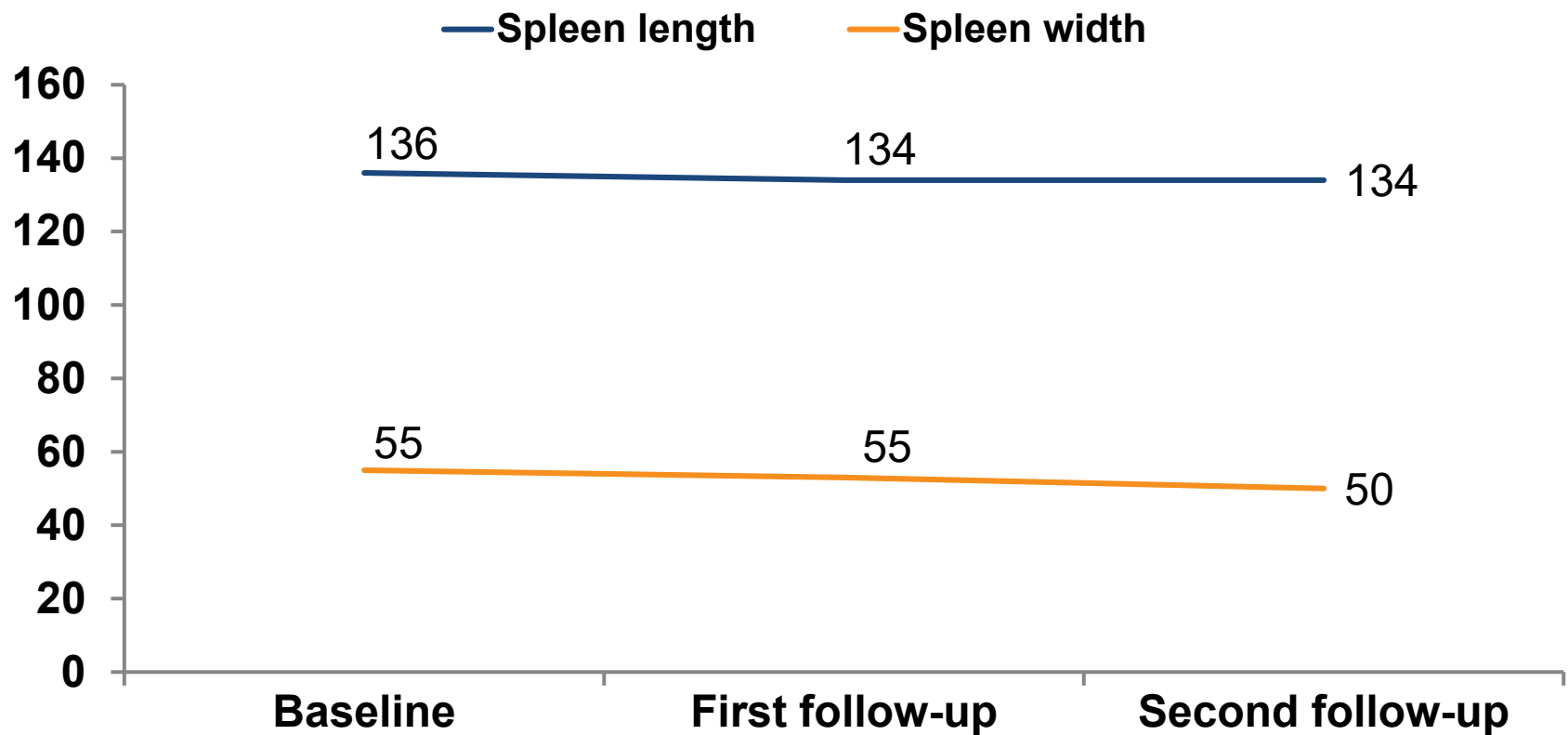# Results

Changes in mean serum ALT and AST levels
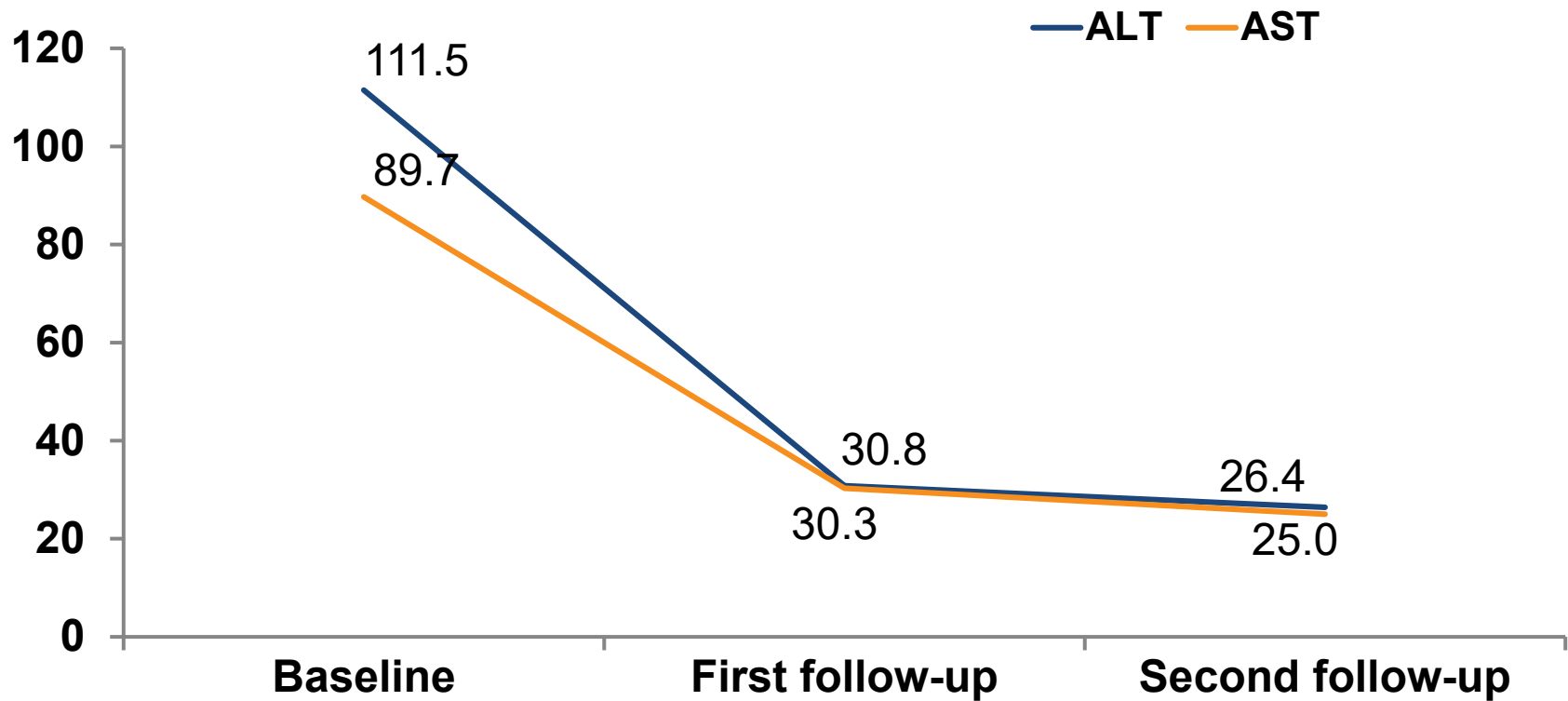
Results

Changes in mean PLT count and HB level

Results

Changes in mean spleen size

Results

First follow-up
(out of 600 patients)

Second follow-up
(out of 227 patients)

Patients with ascites N=17 → **10 (58.8%) resolved**

Patients with ascites N=5 → **3 (60%) resolved**

Patients without ascites N=583 → **9 (1.5%) developed ascites**

Patients without ascites N=222 → **2 (0.9%) developed ascites**

Results

- Out of 588 patients without focal liver lesions (FLL) at baseline 15 individuals (2.5%) developed unspecified FLLs suspected for HCC at first follow-up visit

- 6 (0.9%) deaths were reported at first follow-up visit by patients' families (not validated from death registry)

Conclusion

- Significant improvement in liver fibrosis level and different clinical and laboratory measures was observed 4 years after achieving SVR among patients with advanced liver fibrosis treated with DAAs through HCV elimination program.

5th HEPATITIS C
TECHNICAL ADVISORY
GROUP
TAG Meeting

THANK YOU !!!