Introduction: Survival of patients with hepatocellular carcinoma (HCC) has increased during last years and experience with newer drugs has increased. However, recent data from Greece are lacking. The aim of this cohort study was to estimate the overall survival (OS), the relative frequency of risk factors and the role of the multitarget kinase-inhibitor sorafenib in patients with HCC in northern Greece, in a tertiary center.

Methods: All patients with HCC (diagnosed with biopsy or combination of clinical and CT/MRI dynamic studies) were consecutively enrolled from January 2008 to January 2014 (prospectively from January 2010). Treatment of each patient was individualized and based on the Barcelona-Clinic Liver Cancer (BCLC) system and the availability of each method. Clinical, laboratory and imaging data were evaluated for each patient. Primary end point was death from any cause. Secondary end points were adverse events (AE) of therapies, including transarterial chemoembolization (TACE) and sorafenib. Patients in stage B at the time of diagnosis who received sorafenib were compared with those who did not receive. OS in the two groups was evaluated in a nested case-control study. Survival analysis, logrank test, Mann-Whitney test and chi-square were used for the statistical analysis, with a significance level of α = 0.05 and 95% Confidence Intervals.

Results: Seventy two patients (9 females) were enrolled. Mean age of diagnosis was 68.6 (range 38-85) years. The most frequent risk factor for HCC was chronic HBV infection (31 patients or 43.1%). Nine patients (12.5%) had HCV infection, whereas >1 risk factors were identified in 12 patients (16.7%). Most of the patients (23.6%) were in stage B (BCLC) at the time of diagnosis. Median OS of patients was 26, 24, 18 and 4 months for the stages A, B, C and D respectively. Forty one patients received TACE and 19 sorafenib. Mean number of TACE per patients was 2.8. Mean duration of sorafenib therapy was 4.4 months. Median OS of patients who received sorafenib was 18 months. In the nested case-control study 12 patients of stage B who did not receive sorafenib during the course of the disease were compared with 5 in the same stage who received the drug. Median OS was 18 months in the former group and 30 months in the later (P = 0.36). Most frequent AE of TACE was postembolization syndrome (68.3%). In sorafenib group the observed toxicities were diarrhea in 11 patients (57.9%), fatigue in 11 (57.9%) and hand-foot syndrome in 9 (47.4%) patients.

Conclusion: HBV chronic infection is the most frequent risk factor for HCC in northern Greece. Survival of patients with HCC, as well as toxicities of therapies did not significantly differ from those described in other series of patients. Data from stage B patients who received sorafenib during the course of the disease were not enough to show statistically significant improvement in OS as compared with those who did not receive the drug, although a trend for increase was observed.