

The risk of early occurrence and recurrence of hepatocellular carcinoma in hepatitis C infected patients treated with direct acting antivirals with and without Pegylated Interferon: A Belgian experience.

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ABSTRACT

Introduction

Direct antiviral agents (DAA) have made HCV treatment very effective and safe these last years. Recently, concerns were raised of high rates of HCC recurrence in patients treated with DAA. We investigated the HCC occurrence and recurrence rates within six months after treatment with DAA with or without Pegylated Interferon (PEG-IFN).

Methods and materials

This is a national, retrospective, multicenter cohort trial, executed in 15 hospitals distributed across Belgium. Data were available from two earlier trials investigating the outcome of treatment with DAA with and without PEG-IFN. A new data collection based on the patient files was executed by medical doctors. Populations were matched based on fibrosis score starting from F3. Patients with a Child-Pugh score \geq B were excluded. In total, 472 patients were included in this trial, of whom 72 were treated with DAA with PEG-IFN from 2008 to 2013 and 400 with DAA without PEG-IFN from 2013 until November 2015. In this cohort also an analysis of the rates of follow up by radiographic analysis was performed.

Results

Patients treated with DAA with PEG-IFN (53y \pm 8) were younger than patients treated with DAA without PEG-IFN (59y \pm 12) ($p=0.001$). 48% (38/72) of patients treated with DAA with PEG-IFN were in the F4 stage versus nearly 65% (259/399) of patients treated with DAA without PEG-IFN ($p=0.004$). The rates of radiographic follow up were 77.8% ($n=56/72$) in patients treated with DAA with PEG-IFN, and 78.0% ($n=312/400$) in patients treated with DAA without PEG-IFN. The early occurrence rate of HCC in patients treated with DAA with PEG-IFN was 3.6 % ($n=2/55$) and 1.1% ($n=3/277$) in patients treated with DAA without PEG-IFN. The early recurrence rate was 0% ($n=0/1$) in patients treated with DAA with PEG-IFN, and 20.0% ($n=7/35$) in patients treated with DAA without PEG-IFN. This is visualized in figure 1.

Conclusion

There is no difference in early occurrence of new HCC between patients treated with DAA with and without PEG-IFN. We did observe a high early recurrence rate of HCC in patients treated with DAA without PEG-IFN. However, we cannot state that this difference is significant to patients treated with DAA with PEG-IFN, especially since there were significant differences in patient characteristics such as age and fibrosis stage. In 20%, screening for HCC was inadequate. More efforts are necessary as we need to remain vigilant when treating high risk patients.

Figure 1: Screening, occurrence and recurrence rates of HCC in DAA vs IFN + RBV + DAA

