

Direct-Acting Antivirals against HCV Infection in Elderly patients: Are they so well Tolerated and Safe as we thought?

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Background & Aims

- Progression of HCV-related hepatitis towards cirrhosis and HCC is more rapid in the elderly patients [1,2].
- They are more likely to suffer from extrahepatic manifestations of HCV infection, such as fatigue and neuropsychological disorders [3].
- Polytherapy and polypharmacy are frequent in elderly patients due to associated comorbidities.
- IFN-based regimens in patients aged ≥ 65 years had more side effects, higher discontinuation rates, and lower SVR rates, probably due to a reduced stimulatory effect of IFN on the aged immune system [4-6].

Background & Aims

- New direct-acting antiviral agents (DAAs) are highly safe and well tolerated.
- There are few data about elderly patients from clinical trials.
 - Simeprevir: Number of patients > 65 years is too small to draw meaningful conclusion and no data at all is available for patients over the age of 73 years [7]
 - Sofosbuvir: Lack of clinical experience treating patients older than 75 years of age [7]
 - Sofosbuvir + Ledipasvir: 4-8% of patients aged > 65 years [8,9]
 - Ombitasvir + Paritaprevir + Ritonavir + Dasabuvir: Proportion of patients aged 65 years (4-16%) but all trials excluded patients over 70 years of age [10-13]
 - Daclatasvir: experience in the elderly population is even poorer [14]
- However, data from IFN-free regimens suggest that SVR rates are not influenced by age.
- Therefore, patients aged > 65 years, in whom comorbidities exist, might especially benefit of these therapies.

Methods

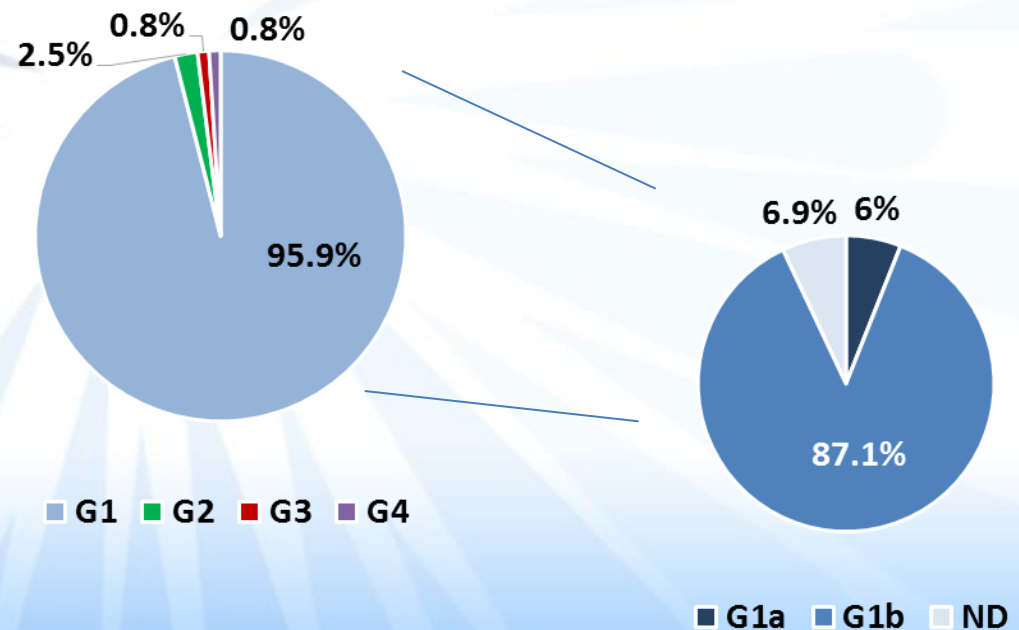
- All HCV-infected elderly patients (≥ 65 years) in clinical follow-up at two hospitals of Spain (Universitary Hospital of A Coruña and Alvaro Cunqueiro Hospital) who initiated anti-HCV therapy were included (August 2012-October 2015) in the study.
- Epidemiological, clinical characteristics, HCV treatment and concomitant medications were recorded.
- A descriptive analysis was performed using SPSS 19.0



Baseline Characteristics of the Study Population

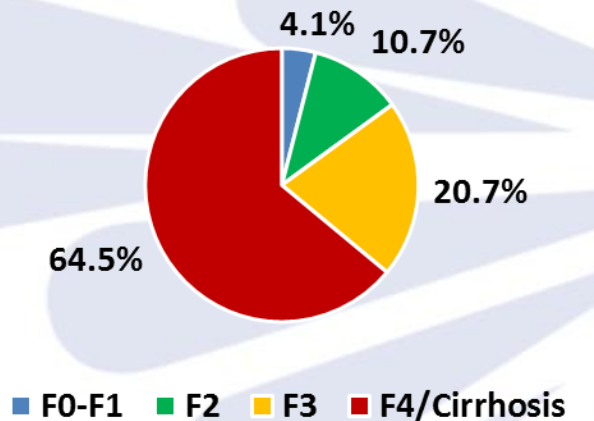
- N = 121 HCV mono-infected patients
- Women: 52.9%
- Age: **72.6 ± 7.4 years**
 - 10.7% > 80 years
- HCV Viral Load: **6.52 ± 6.93 IU/mL**

Figure 1. HCV Genotypes Distribution in Elderly Patients.



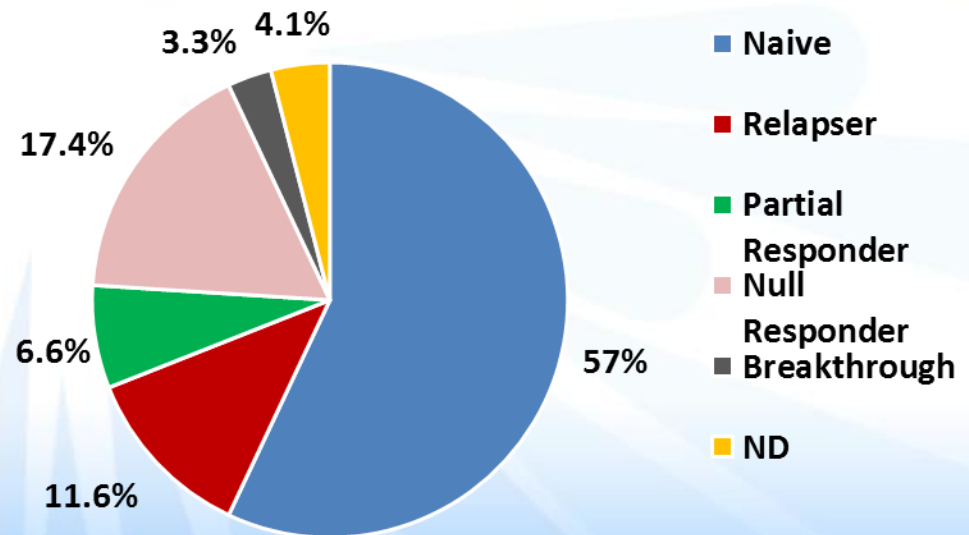
Liver Fibrosis & Previous HCV Treatment Exposure

Figure 2. Liver Fibrosis (Transient Elastography).



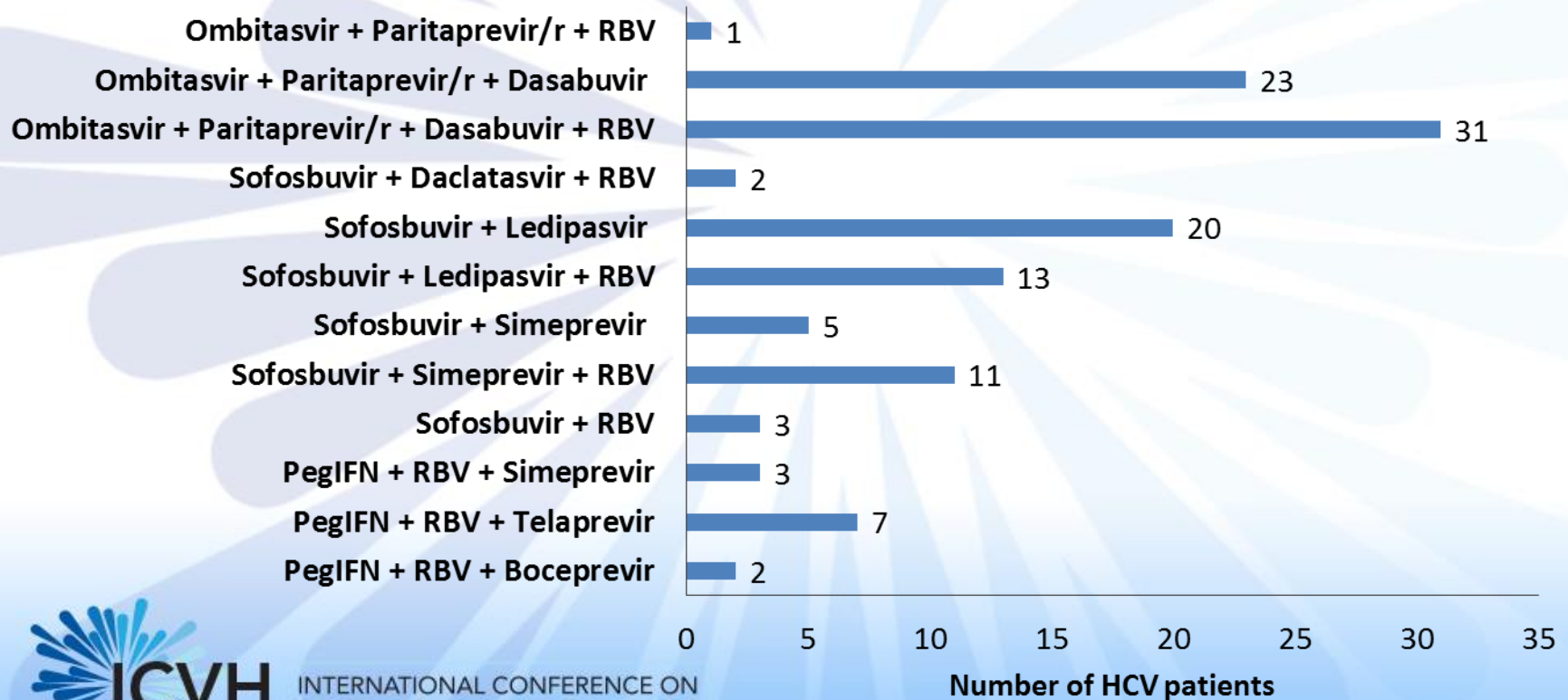
Stiffness: 16 (10 – 21.2) KPa

Figure 3. Previous HCV Treatment Exposure.



DAA Combinations used in Elderly HCV Patients

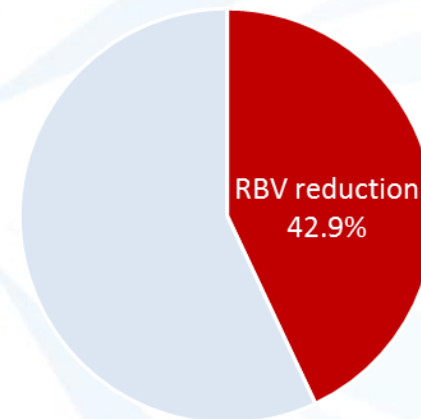
Figure 4. Direct-Acting Antivirals Combinations used to treat HCV Infection in Elderly patients.



Ribavirin Dose Adjustment were required in almost half of patients

- Treatment Duration
 - 12 weeks: 82.6%
 - 24 weeks: 14.9%
- Ribavirin Use: 61.2%
 - 800 mg: 12.2%
 - 1000 mg: 50%
 - 1200 mg: 37.8%

Figure 5. Ribavirine reduction during HCV treatment



RBV reduction: w4 (60.6%), w8 (6.1%), w12 (33.3%)

More than 85% of Patients were with Concomitant Medication

Figure 6. Number of concomitant drugs in Elderly HCV Patients.

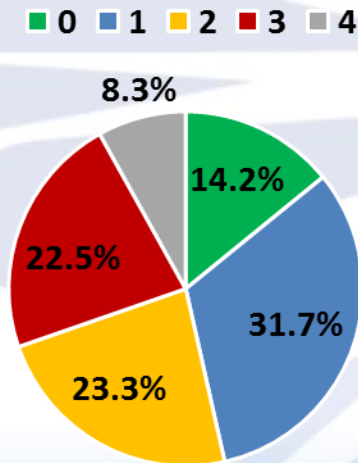


Table 1. Concomitant Medication according to drug-families.

Drugs	N (%)
Antihypertensives	63 (52.1)
Statins	10 (8.3)
Benzodiazepines	23 (19)
Antidepressants	11 (9.1)
Levothyroxine	9 (7.4)
Proton-Pump Inhibitors	32 (26.4)
Antidiabetic Oral Agents & Insuline	20 (16.5)

Efficacy & Adverse Events

- SVR12: **95.1%**
 - 66.1% are still on treatment
- Adverse Events: **43.8%**
- 2 Hepatic Decompensation
 - Encephalopathy
 - Hydropic decompensation
- Treatment Discontinuation (**2.4%**)
- No mortality

Table 2. Most frequent Adverse Events recognized during HCV Treatment.

Adverse Events	N (%)
Anemia	42 (34.7)
Bilirubin increased	13 (10.7)
Fatigue	45 (37.2)
Insomnia	4 (3.3)
Irritability	3 (2.5)
Dry mucous	18 (14.9)

Conclusions

- High rates of SVR (95.1%) were observed among HCV-infected elderly patients under DAAs based regimens.
- The presence of adverse events was frequent (43.8%) but only 2.4% discontinued treatment for this cause.
- The majority (86.8%) had concomitant medication that need to be adjusted in third of them.
- Moreover, 42.9% of patients required a dose reduction of RBV.
- These findings highlight the high rates of response to DAAs-based therapy in elderly HCV population but with a special caution with RBV-doses adjustment.



Acnowledgements

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