Efficacy in Clinical Practice of New Direct Acting Antivirals for the Treatment of Hepatitis C Virus

Background
- Hepatitis C virus (HCV) infection is one of the main causes of chronic liver disease worldwide. New direct-acting antivirals (DAAs) have been licensed in EU in 2014 and represent an improvement in effectiveness and safety of HCV treatment.

Purpose
- Analyze the efficacy of DAAs and review possible factors, such as adherence and interactions, that have been able to affect in those patients where therapy was not effective. Compare the sustained virological response (SVR) of our population with results of clinical trials.

Materials and methods
- Prospective observational study (October 2014-September 2016)
- For each patient, we collected:
  - data demographic
  - genotype
  - fibrosis
  - prior treatment
  - load viral
  - Treatment prescribed
  - concomitant treatment
  - interactions,
  - adherence
  - SVR12

Results
- 203 patients:
  - 83.86 years
  - 61.6% men
  - 22.2% co-infected
  - Treatment experienced: 38.4%

  - SVR12 → 94.1%
    - 91.6% in cirrhosis
    - 96.9% in noncirrhosis
  - SVR12 no 100%:
    - 1a Noncirrhotic → 91.7% with ledipasvir/sofosbuvir
    - 1b Noncirrhotic → 69.2% with daclatasvir/sofosbuvir
    - 90% with daclatasvir/sofosbuvir
    - 3 Noncirrhotic → 96.7% with ombitasvir/paritaprevir/ritonavir/dasabuvir
    - 92.9% with ledipasvir/sofosbuvir and 97.2% with ombitasvir/paritaprevir/ritonavir/dasabuvir
    - 4 Cirrhotic → 0% sofosbuvir/simeprevir/interferon and 92.8% with sofosbuvir/ledipasvir

  - 12 patients did not achieved SVR12: In one adherence was <90% and two were taking drugs that could interact with DAAs (ledipasvir/sofosbuvir with omeprazol).

Conclusions
- DAAs have proved highly effective in our population although slightly lower than expected according to clinical trials (SVR12 94-98% ledipasvir/sofosbuvir in genotype 1 and 4; 99-100% ombitasvir/paritaprevir/ritonavir/dasabuvir in genotype 1b; 97% daclatasvir/sofosbuvir in non-cirrhotic genotype 3), especially in genotype 3 and 4, although this could be explained by the low number of patients in both.
- Most patients without SVR12 were adherents. In general there were no interactions and in those cases where it was detected we recommended a regimen of the drug to avoid it, but if patient did not follow our recommendation, it could have affected efficacy of DAAs.