

EFFECTIVENESS IN GENOTYPES 1B, 1A IN PATIENTS WITH HEPATITIS C VIRUS INFECTION TREATED WITH TELAPREVIR-BASED TREATMENT

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BACKGROUND

Hepatitis C virus genotype 1a (HCV-1a) is a predictor of poor response to peginterferon-ribavirin treatment, which has been associated with a lower resistance barrier, compared to HCV genotype 1b (HCV-1b). Variations in the human IL28B genotypes CC, CT or TT have also been associated with a person's response to treatment for hepatitis C. Studies have shown that people with the CC variation responds better to treatment with pegylated-interferon and ribavirin than those with the CT or TT variations.

PURPOSE

To assess the differences in effectiveness and safety between HCV-1a and HCV-1b in patients with HCV treated with telaprevir-based treatment.

MATERIALS AND METHODS

Retrospective study of patients treated with peginterferon-ribavirin-telaprevir. Demographic and pathological data, response at 4 and 12 weeks (HCV-RNA<1000) and at 24, 36, 48 weeks of treatment (HCV-RNA undetectable), sustained virological response after 12 weeks of treatment (SVS12) adverse effects and discontinuation were collected in an Access database and analyzed with SPSSvs12.

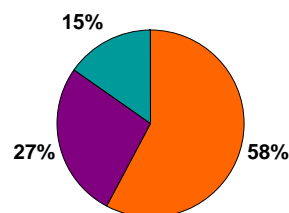
RESULTS

Of 79 patients (57 male), 59,5% were infected with HCV-1b, 59,5% presented fibrosis F3-F4 and 70,9% were pretreated (mainly relapsers 58,9%). The distribution of IL28B genotype in HCV-1a and HCV-1b is showed in Picture 1 and 2.

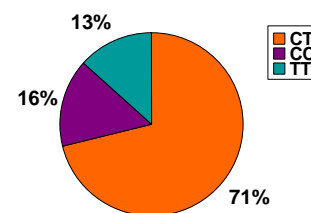
There were significant differences in age: a median age of 50 (34-66) in HCV-1a-infected patients and 57 (42-76) in HCV-1b (p=0,002). The distribution of patients in HCV monoinfected and HIV-HCV coinfecting is in Pictures 3 and 4. 34,2% of patients discontinued treatment.

No statistical difference was found in response at 4, 12, 24, 36 and 48 weeks of treatment and SVR12, but there was a trend towards a lower SVR12 in HCV-1b (75% versus 100% in HCV-1a).

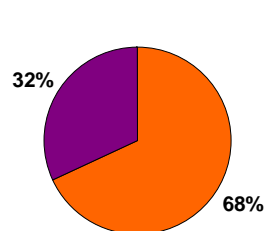
No significant differences were found in cutaneous rash or anaemia (haemoglobin level <10 g/dL). Within each group discontinuation was higher in HCV-1a (43,8%) than in HCV-1b (27,7%) although it was not statistically significant, mainly due to virological failure (64,3%) and adverse effects (46,2%) respectively.



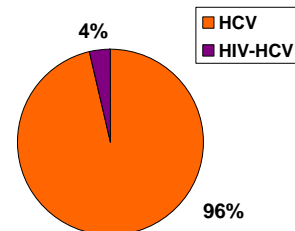
Pic 1. IL28B genotype in HCV-1a patients



Pic 2. IL28B genotype in HCV-1b patients



Pic 3. Distribution of patients in HCV-1a



Pic 4. Distribution of patients in HCV-1b

CONCLUSIONS

The sustained virological response (SVR12) rates in HCV-1a group seems to be better than in HCV-1b, not worse, which might be attributed to a higher frequency of genotype CC and a lower frequency of CT in people infected with it than in those infected with HCV-1b. Studies show CC variation responds better to triple therapy¹. Further studies are required because of the small sample size and more data of sustained virological response are needed.

REFERENCES

1. Clin Drug Investig. 2013 May;33(5):325-31.