FACTORS INFLUENCING THE APPEARANCE OF HAEMATOLOGICAL AND THYROID ADVERSE EFFECTS IN PATIENTS WITH HEPATITIS GENOTYPE 1 TREATED WITH TELAPREVIR/BOCEPREVIR PLUS PEG-INTERFERON AND RIBAVIRIN

DI-010

Manzaneque A[1], Sotoca JM[1], Lens S[2], Kostov B[3], Codina C[1]

[1]Hospital Clínic i Provincial de Barcelona, Pharmacy, Barcelona, Spain.

[2]Hospital Clínic i Provincial de Barcelona, Hepatology, Barcelona, Spain.

[3]Hospital Clínic i Provincial de Barcelona, Institut d'Investigacions Biomèdiques August Pi i Sunyer IDIBAPS, Barcelona, Spain.

Background

- Telaprevir (TVR) or boceprevir (BOC) with peg-interferon/ribavirin (PR) to treat HCV genotype 1 is associated with haematological adverse effects like anemia, neutropenia or thrombocytopenia alterations in thyroid function. Factors influencing the appearance of these adverse effects remain undefined.

Purpose

We aimed to assess the relationship between the characteristics of our population undergoing triple therapy (TT) and those adverse events.

Material and methods

- Retrospective descriptive study
- 61 patients with hepatitis C genotype 1 treated with triple therapy (TT) during the period between January 2012 to June 2014 were included.
- We collected demographic data, VHC genotype, fibrosis stage (F1-F4) at the beginning of treatment and TT treatment with TVR or BOC and the adverse effects occurred during the treatment
- Fisher exact test was used to study the associations between adverse effects and factors corresponding to patients' characteristics. Statistical analysis using the *statistical software R*.

STUDY VARIABLES

I. **Patients characteristics**
   - Demographic data (age, sex)
   - Genotype (1a, 1b)
   - Fibrosis Stage (METAVIR Score)

II. **Adverse effects during the treatment**
   - Anemia (hemoglobin ≤ 10 g/dL)
   - Neutropenia (granulocytes ≤ 0.75 x 10^9/L)
   - Hyper or Hypothyroidism (THS levels ≤ 0.4 or ≥ 4 mIU/mL respectively)
   - Thrombocytopenia (platelet count ≤ 0.50 x 10^9/L)

Results

Table 1: Patients characteristics (N=61)

Sex	47 men; 14 women
Mean age	57 ± 9,3 age
Genotype 1b	49 patients (80,3%)
Treatment with TVR	53 patients (86,9%)
Fibrosis Stage F3/F4 *(Fig1)*	55 patients (90,2%)

Table 2: Adverse effects ocurred during TT

Anemia	29 patients (47,5%)
Neutropenia	15 patients (24,6%)
Thrombocytopenia	5 patients (8,2%)
Hyper or Hypothyroidism	18 patients (29,5%)

- Only statistically significant relationship was observed between age and anemia (**p=0,013**). *Fig 2*

Fig 1. Clinical significance of liver stiffness cut-offs in chronic liver diseases

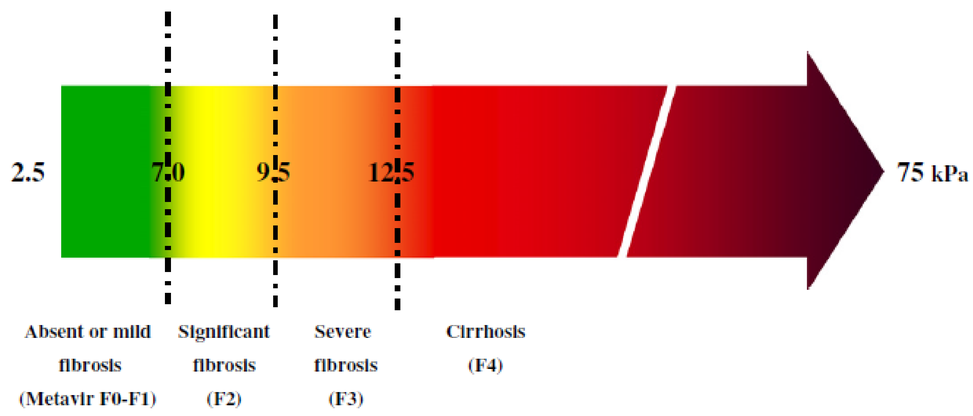

Fig 2. Anemia ocurrence during TT

	Yes (n=29)	*No (n=32)*	*p*
Age	60.1 + 7.9	54.3 + 9.8	**0.013***
Sex			0.066
Female	10 (34.5%)	4 (12.5%)	
Male	19 (65.5%)	28 (87.5%)	
VHC Genotype			0.343
1a	4 (13.8%)	8 (25%)	
1b	25 (86.2%)	24 (75%)	
TT drug			0.513
Boceprevir	4 (13.8%)	7 (21.9%)	
Telaprevir	25 (86.2%)	25 (78.1%)	
Metavir score			0.610
F2	4 (13.8%)	2 (6.2%)	
F3	11 (37.9%)	12 (37.5%)	
F4	14 (48.3%)	18 (56.2%)	

Conclusions

✓ Age and not fibrosis stage was the main factor associated to the development of anemia during triple therapy.