IS 8-WEEKS REGIMEN OF GLECAPREVIR/PIBRENTASVIR SUFFICIENT FOR ALL HCV INFECTED PATIENTS IN THE REAL-WORLD EXPERIENCE?

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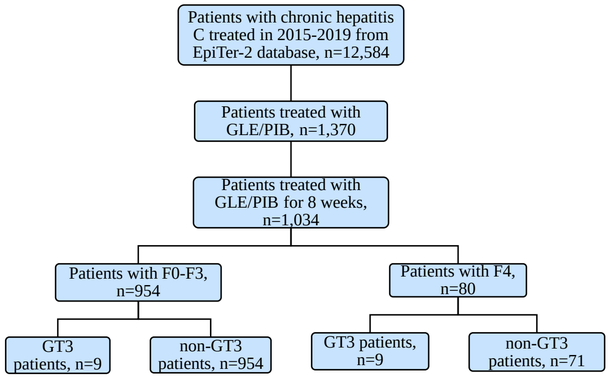
BACKGROUND AND AIMS

The revolution of the antiviral treatment of hepatitis C virus (HCV) infection resulting in higher effectiveness came with the introduction of direct-acting antivirals with pangenotypic regimens as a final touch. Among them, the combination of glecaprevir (GLE) and pibrentasvir (PIB) provides the opportunity for shortening therapy to 8 weeks in the majority of patients. Due to still insufficient evaluation of this regimen in the real-world experience, our study aimed to assess the efficacy and safety of the 8-weeks GLE/PIB in chronic hepatitis C patients depending on liver fibrosis and genotype (GT).

Table 1. Baseline characteristics of 1,034 patients treated with GLE/PIB for 8 weeks according to liver fibrosis.

Characteristics	F4, N=80	F0-F3, n=954	P
Female / male, n(%)	34/46 (43%/57%)	505/449 (53%/47%)	0.09
Age, years (mean±SD)	55.2 ± 12	45.1 ± 13.5	<0.001
BMI (mean±SD)	28 ± 6.4	25.5 ± 4.1	0.001
GT, n(%) 1 1a 1b 2 3 4 5	2 (2%) 0 65 (81%) 1 (1%) 9 (12%) 3 (4%) 0	28 (3%) 57 (6%) 583 (61%) 2 (0.2%) 225 (23.6%) 58 (6.1%) 1 (0.1%)	<0.01
Fibrosis F0 F1 F2 F3 F4	na	41 (4.3%) 630 (66%) 209 (21.9%) 74 (7.8%) na	N/A
Liver stiffness kPa (mean±SD)	26.6 ± 14.5	6.5 ± 2.1	<0.001
Treatment-naive, n(%)	77 (96%)	902 (95%)	0.47
History of decompensation, n(%)	15 (19%)	5 (0.5%)	<0.001
HCC history, n(%)	3 (4%)	1 (0.1%)	0.002
OLTx history, n(%)	0	0	N/A
Renal insufficiency, n(%) GFR <60ml/min	1 (1%)	16 (1.7%)	1.00
Clinical decompensation at baseline, n(%)	1 (1%)	na	N/A
Child-Pugh B, n(%)	2 (2%)	na	N/A
MELD (mean±SD, range)	7.8 ± 1.9 (6-16)	na	N/A
HBV coinfection (HBsAg+), n(%)	1 (1%)	2 (0.2%)	0.23
HIV coinfection, n(%)	6 (7%)	84 (8.7%)	0.69
Any comorbidity, n(%)	59 (74%)	418 (44%)	<0.001
Concomitant medications, n(%)	59 (74%)	411 (43%)	<0.001
HCV RNA x10^6 IU/ml (mean±SD)	1.56 ± 2.0	2.27 ± 6.9	0.21
Albumins g/dl (mean±SD)	3.96 ± 0.4	4.2 ± 0.4	<0.001
Platelets x10^9/l (mean±SD)	163 ± 88	219 ± 61	<0.001
ALT IU/ml (mean±SD)	116 ± 116	72 ± 60	<0.001
Creatinine mg/dl (mean±SD)	0.8 ± 0.2	0.9 ± 0.8	0.16
Bilirubin (mean±SD)	0.9 ± 0.5	0.6 ± 0.4	<0.001

Figure 1. Study flow chart



METHODS

The analysis included patients who received GLE/PIB for 8 weeks selected from the EpiTer-2 database, large retrospective national real-world study evaluating antiviral treatment in 12,584 individuals in 22 Polish hepatology centres (Figure 1).

RESULTS A total of 1,034 patients with female predominance (52%) were enrolled to the analysis. The majority of them were treatment-naïve (94%), presented liver fibrosis (F) of F0-F3 (92%), with the most common GT1b, followed by GT3 (table 1). The overall sustained virologic response after exclusion of non-virologic failures, was achieved in 95.8% and 98% respectively (p=0.19) (Figure 2). In multivariate logistic regression HCV GT-3 (Beta=0.07, p=0.02) and HIV-infection (Beta=-0.14, p<0.001) were independent predictors of non-response (table 2).

Figure 2. The efficacy of 8-weeks GLE/PIB regarding liver fibrosis and HCV GT

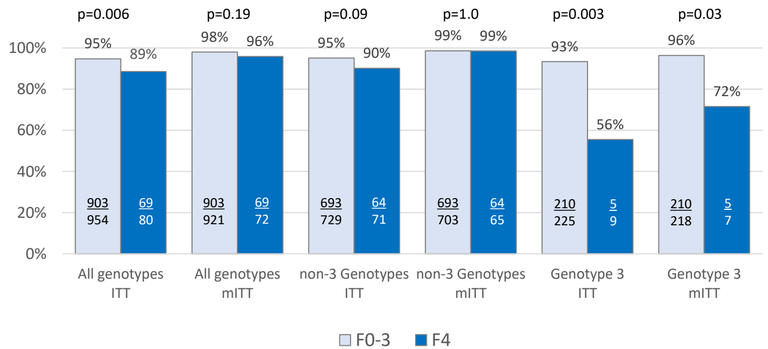


Table 2. Results of logistic regression for SVR in patients treated GLE/PIB for 8 weeks

	Estimate of β	SE	tStat	p-Value
Age (years)	0.031	0.032	-0.973	0.331
Sex (F/M)	0.023	0.033	-0.684	0.494
ALT (IU/mL)	0.017	0.033	0.498	0.619
Genotype (3 vs non-3)	0.072	0.032	2.242	0.025
HIV-infection (no/yes)	0.144	0.032	-4.493	<0.001

Table 3. Characteristics of 21 virologic failures to GLE/PIB 8-weeks therapy

patient	age	genotype	history of previous therapy	fibrosis	HIV-coinfection	Baseline HCV RNA x10^6 IU/ml	Treatment course	EOT
Female 1	35	4	Treatment-naive	1	YES	2700000	completed	TND
Female 2	28	1A	Treatment-naive	1	NO	5900000	completed	TND
Female 3	58	1B	Treatment-naive	2	NO	532776	completed	TD
Female 4	49	1B	Treatment-naive	1	NO	212000	completed	TND
Female 5	35	3	Treatment-naive	3	NO	345321	completed	TD
Female 6	29	3	Treatment-naive	0	NO	505863	completed	TD
Female 7	70	3	Treatment-naive	2	NO	968209	completed	TD
Male 1	30	4	Treatment-naive	2	YES	863000	completed	TND
Male 2	44	4	Treatment-naive	1	YES	668519	completed	TD
Male 3	34	1A	Treatment-naive	1	NO	9600000	completed	TND
Male 4	41	1B	Treatment-naive	2	NO	760000	completed	TD
Male 5	34	1B	Treatment-naive	2	YES	3180000	completed	TND
Male 6	34	1B	Treatment-naive	1	YES	639571	completed	TND
Male 7	42	3	Treatment-naive	1	NO	4570000	completed	TND
Male 8	34	3	Treatment-naive	1	NO	10000000	completed	TND
Male 9	39	3	Treatment-naive	1	NO	4620000	completed	TD
Male 10	55	3	Treatment-naive	1	NO	2480000	completed	TND
Male 11	39	3	Treatment-naive	2	YES	795684	completed	TD
Male 12	51	3	Treatment-naive	4	NO	1621033	completed	TD
Male 13	48	3	Treatment-naive	4	YES	942000	completed	TND
Male 14	46	1B	Treatment-naive	4	YES	1240000	completed	TND

CONCLUSIONS

We demonstrated high effectiveness of 8-week GLE/PIB treatment in a non-GT3 population irrespective of liver fibrosis stage. Comparable efficacy was achieved in non-cirrhotic patients regardless of the genotype, including GT3 HCV.