IL PAZIENTE COINFETTO TRATTATO CON I NUOVI DAA: l'esperienza della coorte SCOLTA.

*Francois Millet, "*Le spigolatrici" *(1857)*

Barbara Menzaghi

BACKGROUND

There are few data on the real-world experience of oral hepatitis C virus (HCV) direct-acting antiviral (DAA) drug combinations in HIV/HCV coinfected patients (pts).

The aim of this study is to evaluate the safety and the efficacy of DAA therapies in a cohort of HIV/HCV patients.

METHODS

The SCOLTA project (Surveillance Cohort Long-Term Toxicity of Antiretrovirals/Antivirals) was set up as an active pharmacovigilance system for new antiretroviral drugs.

This online recording system was established by the CISAI group (Italian Coordinators for the Study of Allergies and HIV Infection; http://www.cisai.info).

With the introduction of new drugs for the treatment of chronic hepatitis HCV, this system was modified to assess the DAA treatment efficacy, safety and tolerability in Italian HCV patients, both monoinfected and coinfected with HIV.

METHODS

-Twenty-five Italian infectious diseases centers enroll patients and collect their data through this on-line system

-As this is an observational study, the local physicians establish the antiviral therapy.

-Periodical evaluations of these patients, including physical examination and laboratory tests were performed.

-Any reason for treatment interruption was recorded in a standard form.

RESULTS

Overall 1303 pts (30.7% HCV/HIV) were included in this study

68.7% were males; median age was 54.0 years.

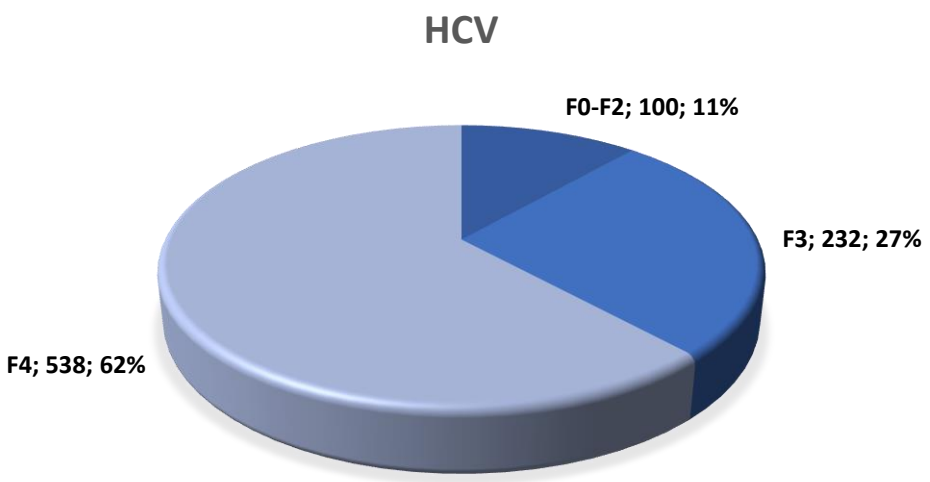
Among them, 62.4% had F4 and 27.2% F3 fibrosis.

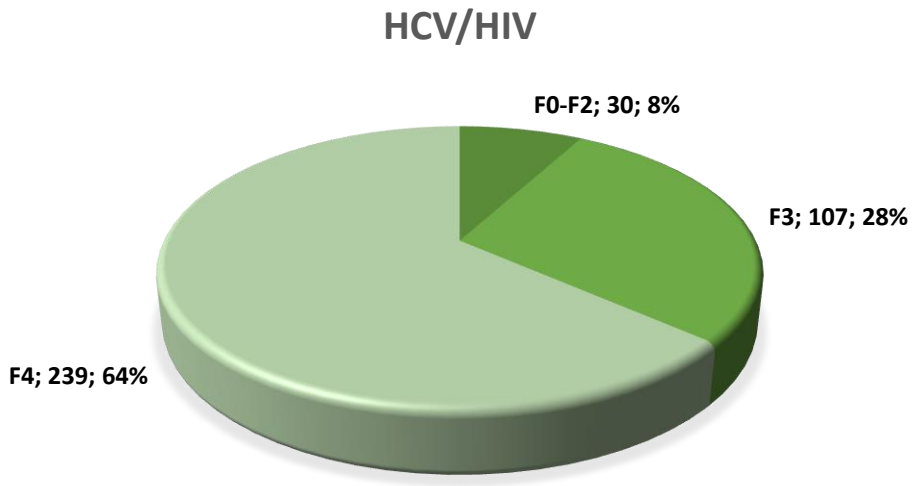
HCV/HIV and HCV pts were similar in terms of baseline fibrosis.

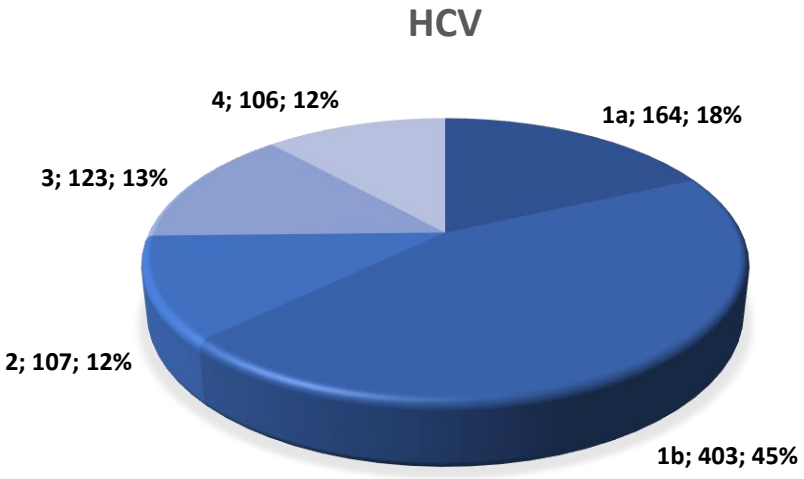
HCV/HIV subjects were younger, more frequently males and harbored more frequently HCV genotype 1a or 3.

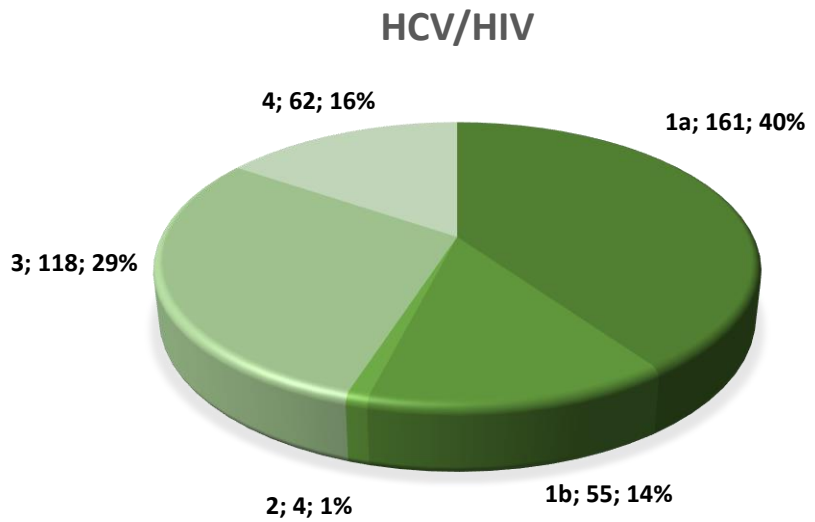
Patients with HCV genotype 1 infection received more frequently SOF/LDV instead of 3D or SOF/SIM in case of HIV coinfection.

Baseline characteristics	HCV n (902, 69.3%)	HCV/HIV n (400, 30.7%)	P
Females	316 (35.0)	66 (16.5)	<0.0001
Median age (min-max)	56 (25-87)	52 (34-76)	<0.0001
METAVIR score			
F0-F2	100 (11.5)	30 (8.0)	0.17
F3	232 (26.7)	107 (28.5)	
F4	538 (61.8)	239 (63.5)	
Genotype			
1a	164 (18.2)	161 (40.2)	<0.0001
1b	403 (44.6)	55 (13.8)	
2	107 (11.8)	4 (1.0)	
3	123 (13.6)	118 (29.5)	
4	106 (11.7)	62 (15.5)	
HCVRNA T0>800,000 UI/mL	422 (46.8)	222 (30.7)	0.004
Undetectable HCVRNA 4 wks.	373 (48.5)	152 (49.0)	0.86
Ribavirin	609 (67.5)	273 (68.2)	0.80
DAA regimen			
2D	34 (3.8)	22 (5.6)	<0.0001
3D	189 (21.4)	54 (13.7)	
SIM/DAC	4 (0.4)	0	
SIM/PEG	26 (2.9)	3 (0.8)	
SOF/RIBA	178 (20.1)	82 (20.9)	
SOF/DAC	108 (12.2)	77 (19.6)	
SOF/LED	124 (14.0)	82 (20.9)	
SOF/SIM	222 (25.1)	73 (18.6)	
Outcome			
SVR 12	652 (94.1)	302 (91.8)	0.19
Failure	8 (1.2)	8 (2.4)	
Relapse	25 (3.6)	17 (5.2)	
Interruption	8 (1.2)	2 (0.6)	

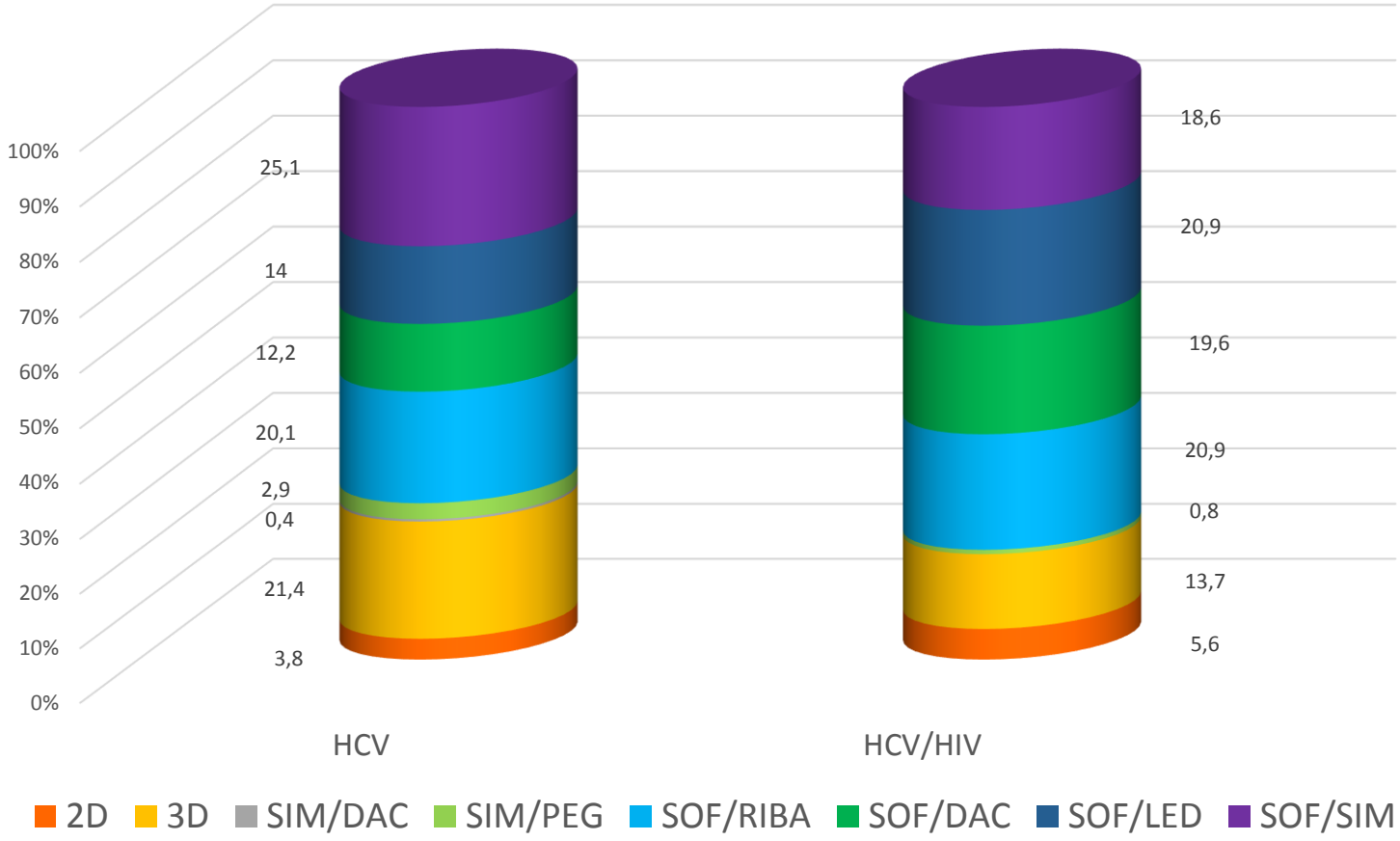

HCV
F0-F2; 100; 11%
F3; 232; 27%
F4; 538; 62%


HCV/HIV
F0-F2; 30; 8%
F3; 107; 28%
F4; 239; 64%


HCV
4; 106; 12%
1a; 164; 18%
3; 123; 13%
2; 107; 12%
1b; 403; 45%


HCV/HIV
4; 62; 16%
1a; 161; 40%
3; 118; 29%
2; 4; 1%
1b; 55; 14%

DAA regimen

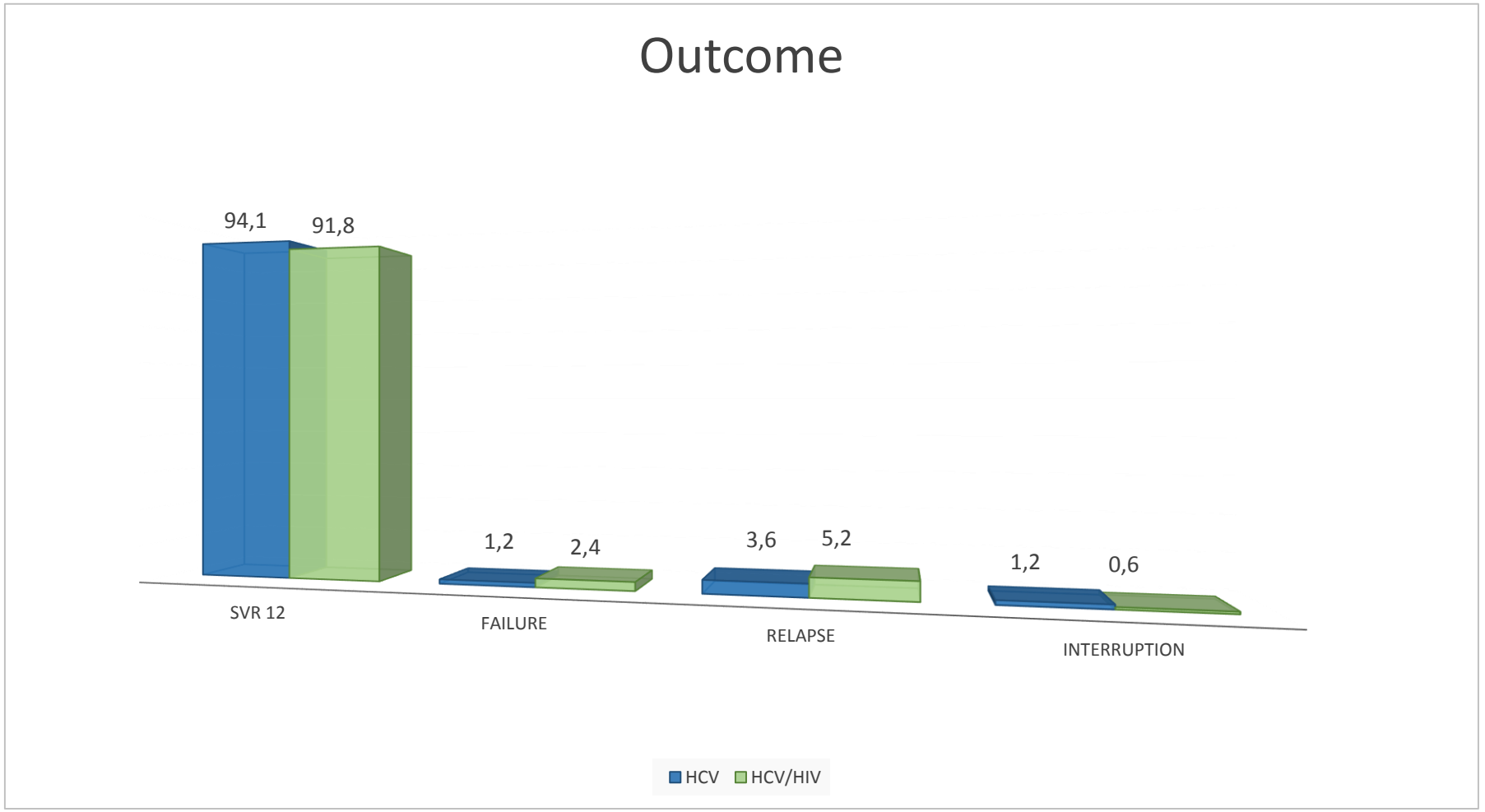

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
25,1
14
12,2
20,1
2,9
0,4
21,4
3,8
18,6
20,9
19,6
20,9
0,8
13,7
5,6
HCV
HCV/HIV
2D
3D
SIM/DAC
SIM/PEG
SOF/RIBA
SOF/DAC
SOF/LED
SOF/SIM

HIV-HCV

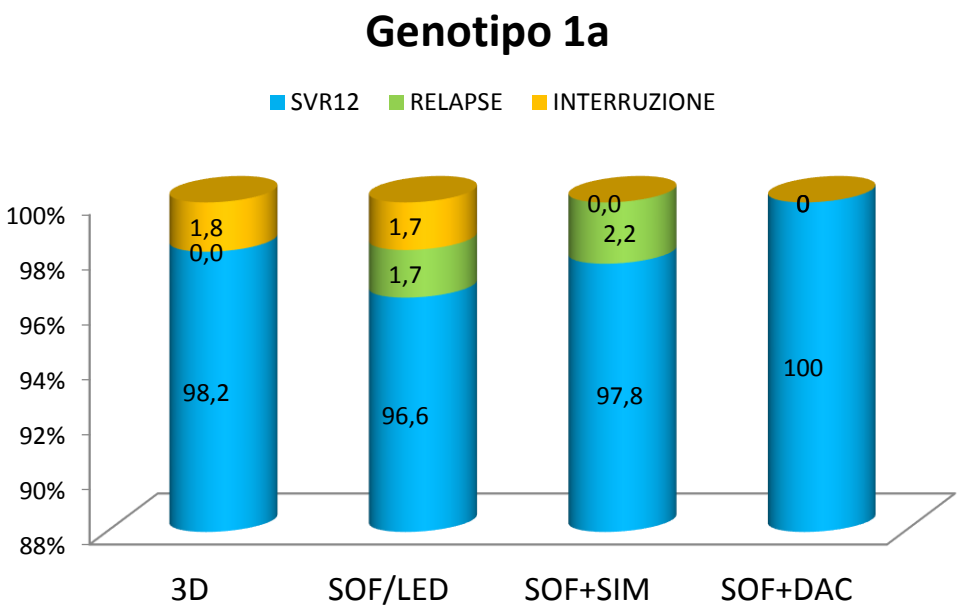
Excluding pts who prematurely discontinued treatment (n=10, 1.0%, 7 due to adverse events, 3 to death), SVR12 rate was 92.4% and 95.2% in HCV/HIV and HCV pts, respectively (p=0.07).

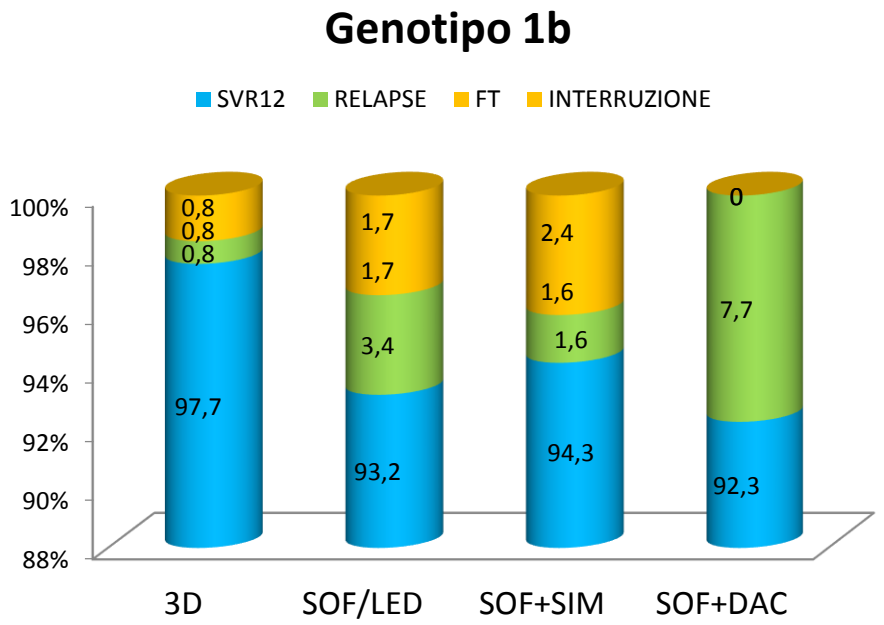
Baseline characteristics	HCV	HCV/HIV	P
	n (902, 69.3%)	n (400, 30.7%)	
Outcome			
SVR 12	652 (94.1)	302 (91.8)	
Failure	8 (1.2)	8 (2.4)	0.19
Relapse	25 (3.6)	17 (5.2)	
Interruption	8 (1.2)	2 (0.6)	

The analyses were conducted in strata of HCV genotype.
Including in the logistic regression terms for gender, age, baseline HCVRNA and DAA regimen, HIV co-infection was not associated to a worse virological outcome (both in the per-protocol and intention-to-treat analysis).


Outcome
94,1
91,8
1,2
2,4
3,6
5,2
1,2
0,6
SVR 12
FAILURE
RELAPSE
INTERRUPTION
HCV
HCV/HIV

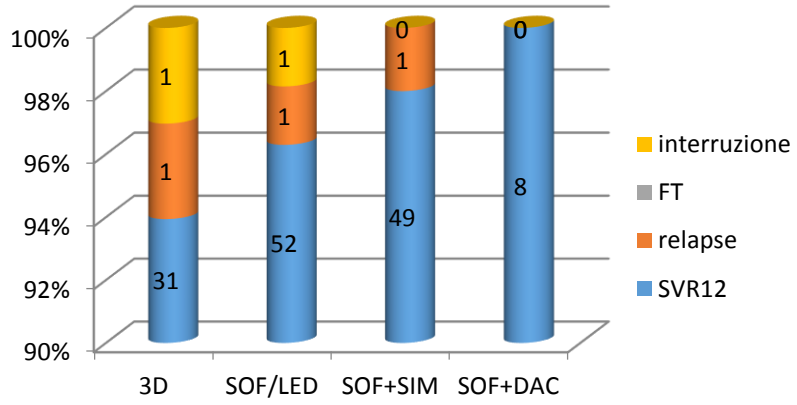
RESULTS


Genotipo 1a
SVR12
RELAPSE
INTERRUZIONE
100%
98%
96%
94%
92%
90%
88%
1,8
0,0
98,2
1,7
1,7
96,6
0,0
2,2
97,8
0
100
3D
SOF/LED
SOF+SIM
SOF+DAC

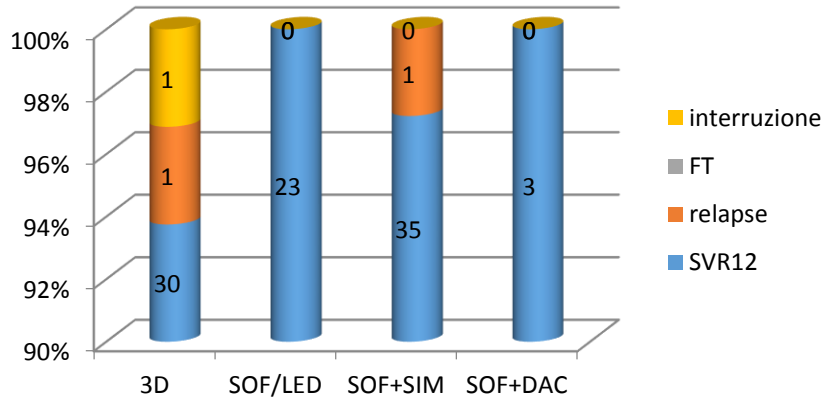

Genotipo 1b
SVR12
RELAPSE
FT
INTERRUZIONE
100%
98%
96%
94%
92%
90%
88%
0,8
0,8
0,8
97,7
1,7
1,7
3,4
93,2
2,4
1,6
1,6
94,3
0
7,7
92,3
3D
SOF/LED
SOF+SIM
SOF+DAC

Genotipo 1a

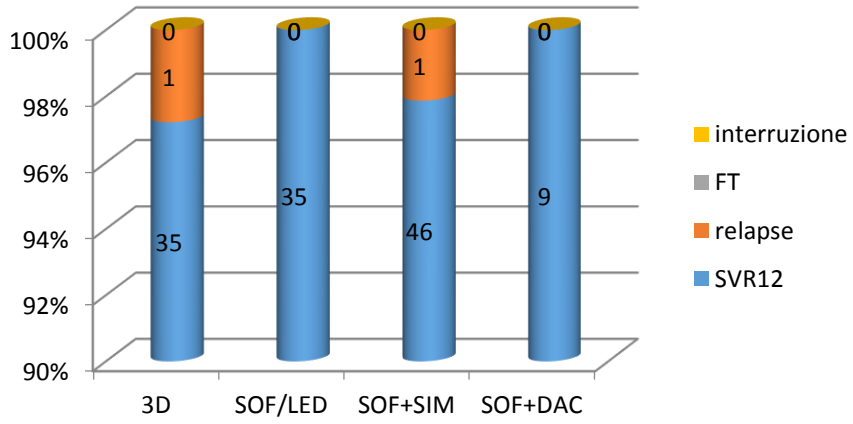
HCV/HIV



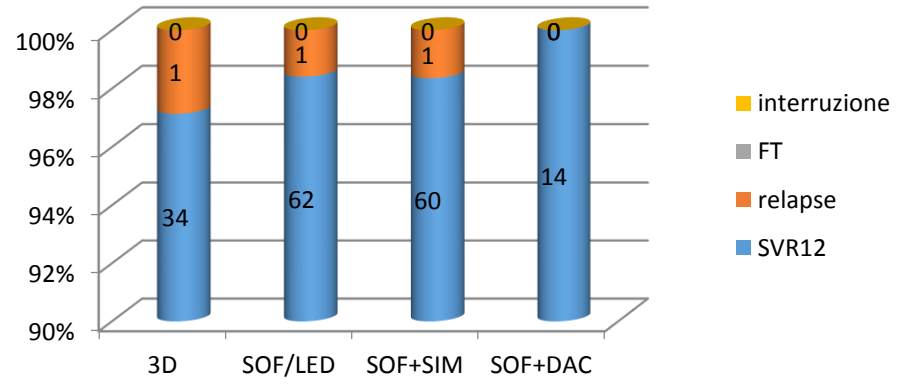
F3



HCV

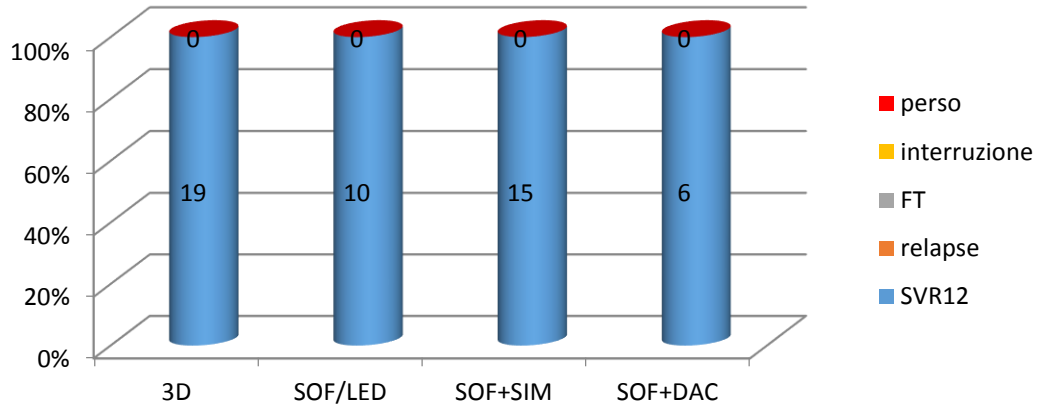


F4

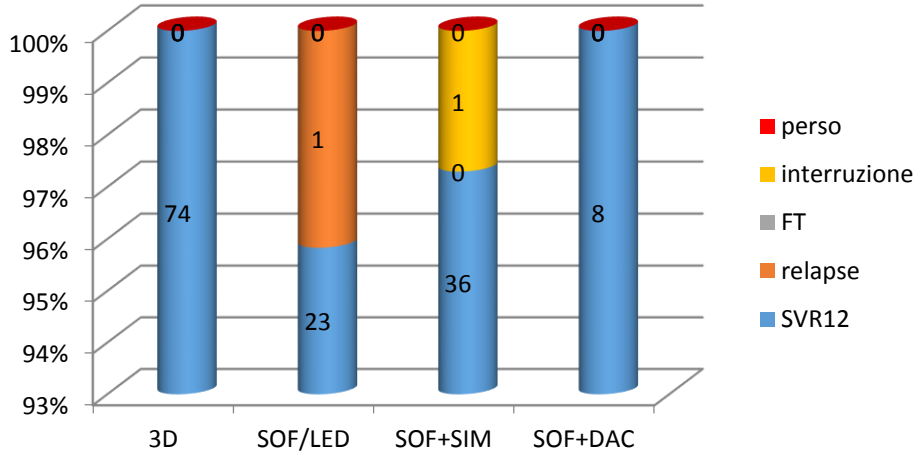


Genotipo 1b

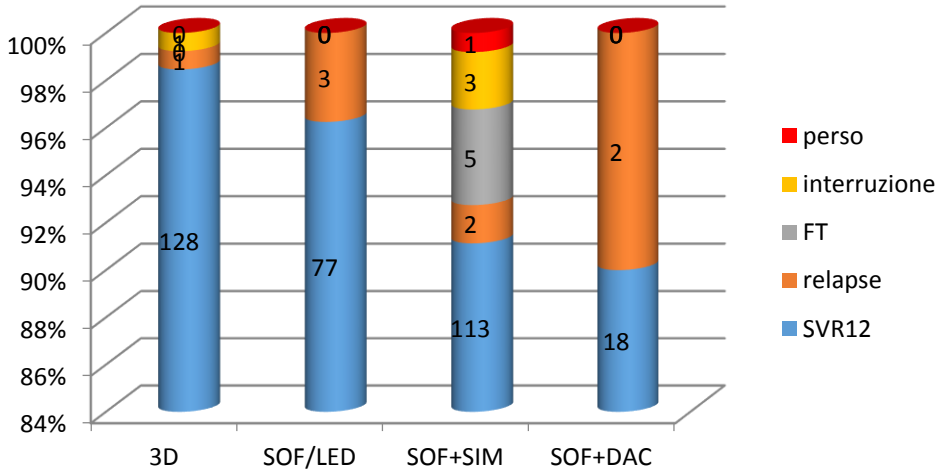
HCV/HIV



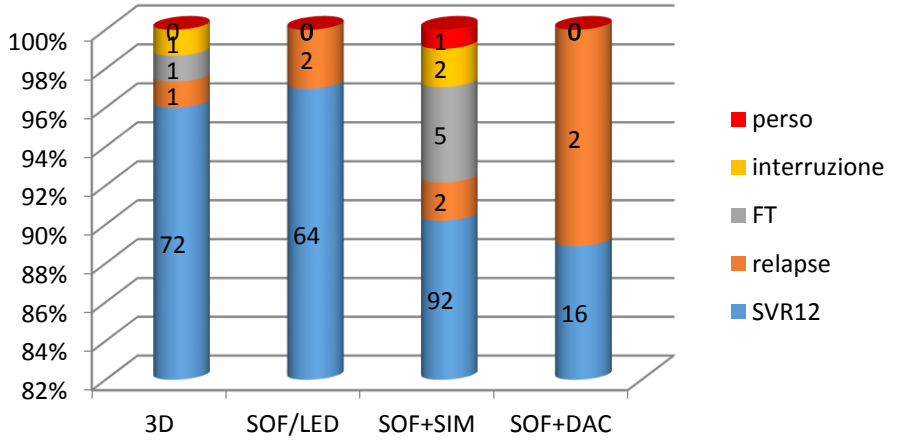
F3



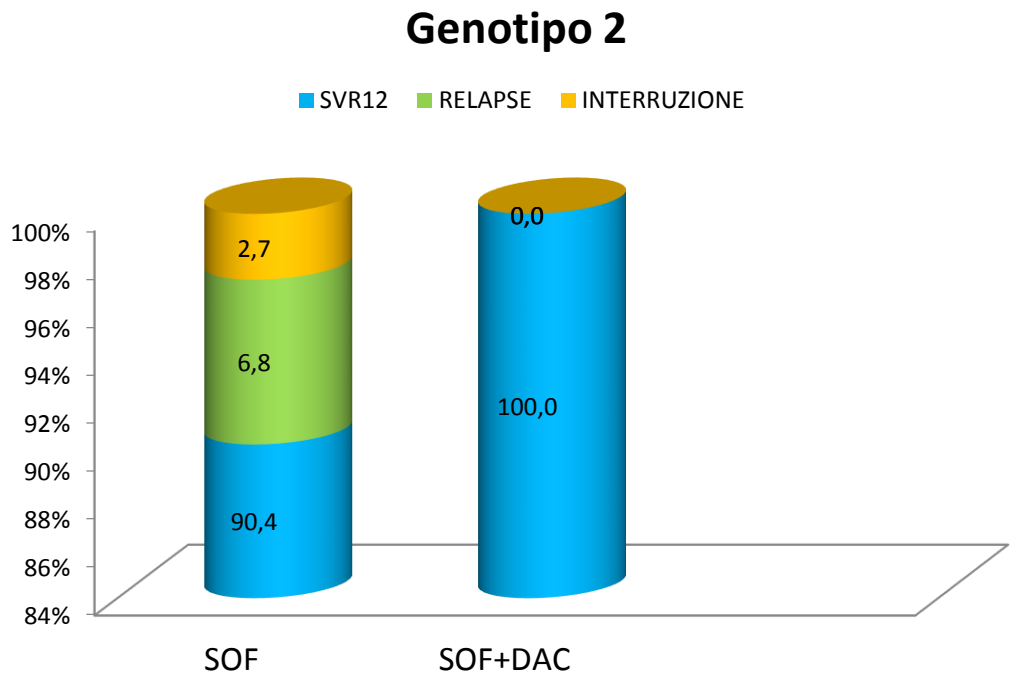
HCV

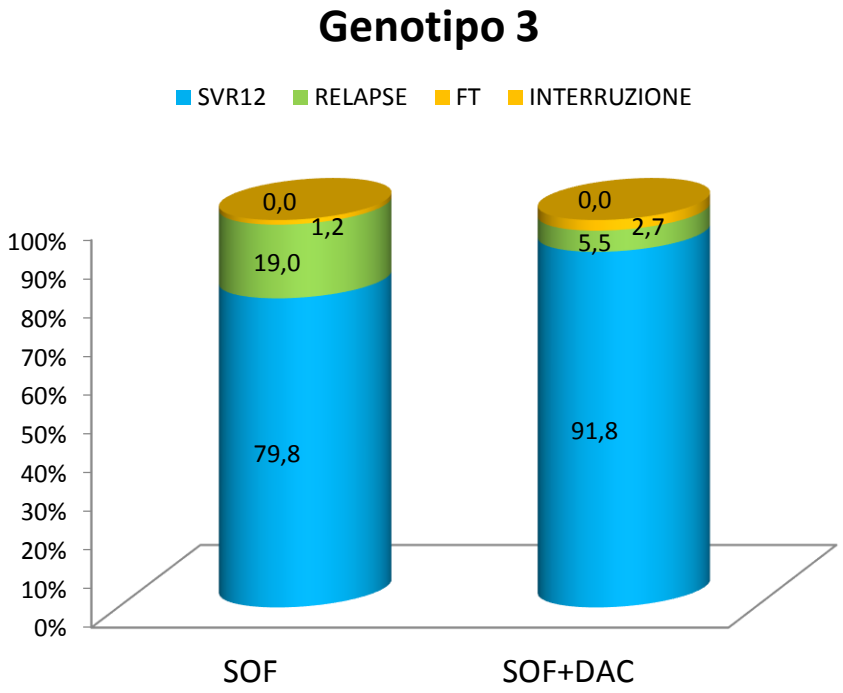


F4



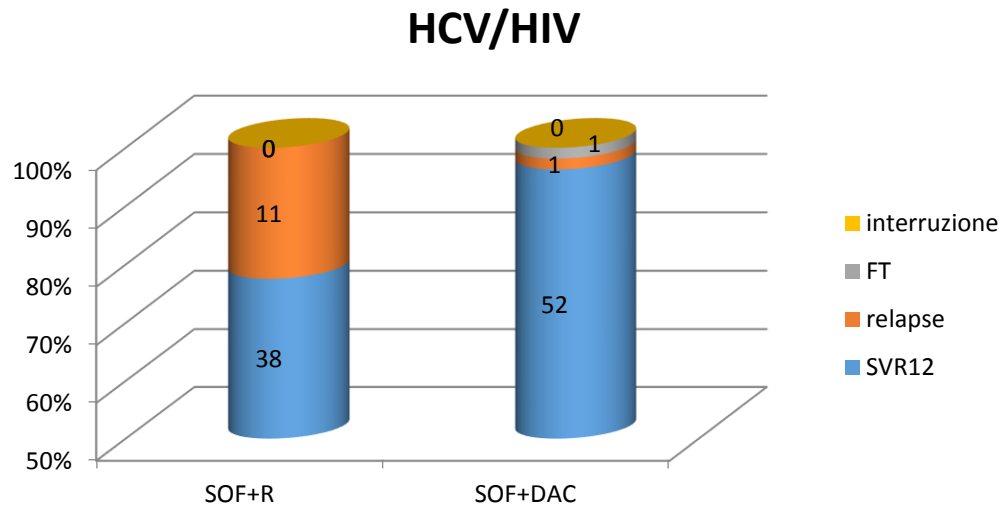
RESULTS

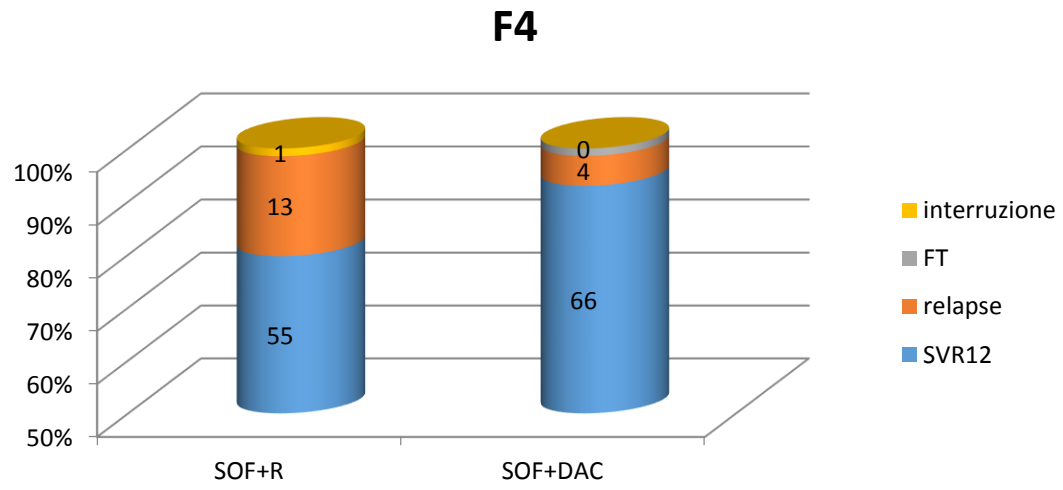




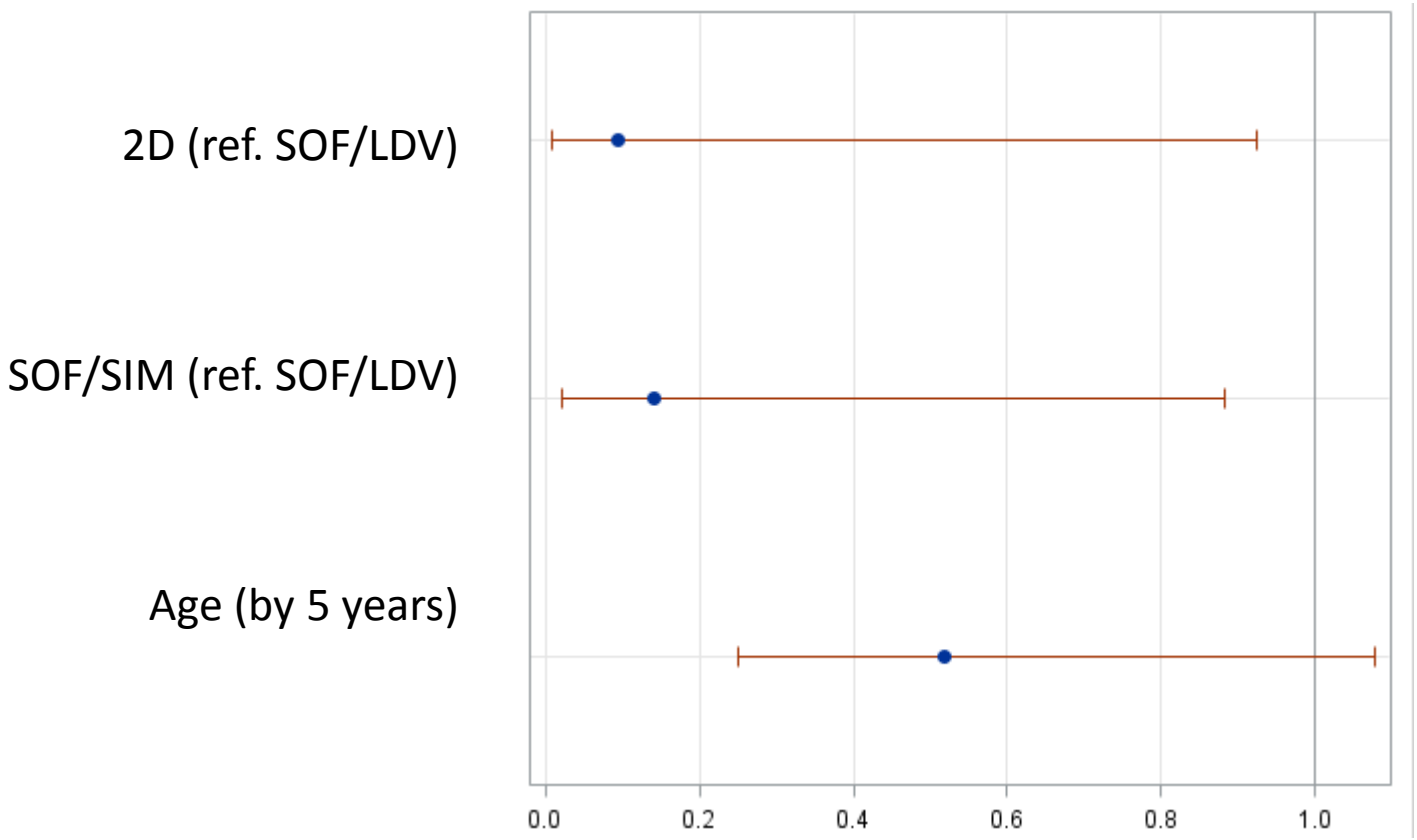
In genotype 3, SOF/DAC regimen (with or without ribavirin) was protective against failure (OR=0.32, 95% CI 0.11-0.96) as compared to SOF/RIBA.

Genotipo 3


HCV/HIV
100%
90%
80%
70%
60%
50%
0
11
38
0
1
1
52
SOF+R
SOF+DAC
interruzione
FT
relapse
SVR12


F4
100%
90%
80%
70%
60%
50%
1
13
55
0
4
66
SOF+R
SOF+DAC
interruzione
FT
relapse
SVR12

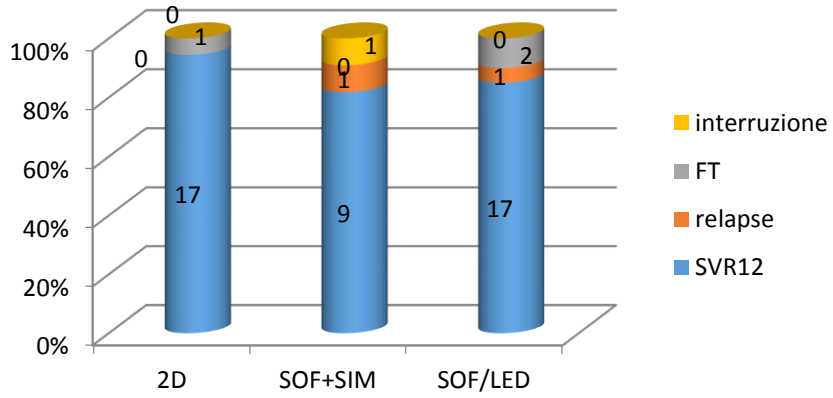
RESULTS



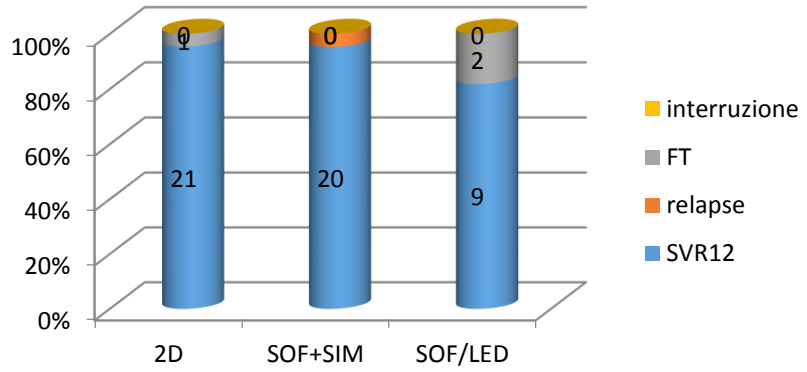
In genotype 4, as compared to SOF/LDV, 2D and SOF/SIM were less likely to experience failure (respectively OR 0.09, 95% CI 0.01-0.92 and OR 0.14, 95% CI 0.02-0.88).

Genotipo 4

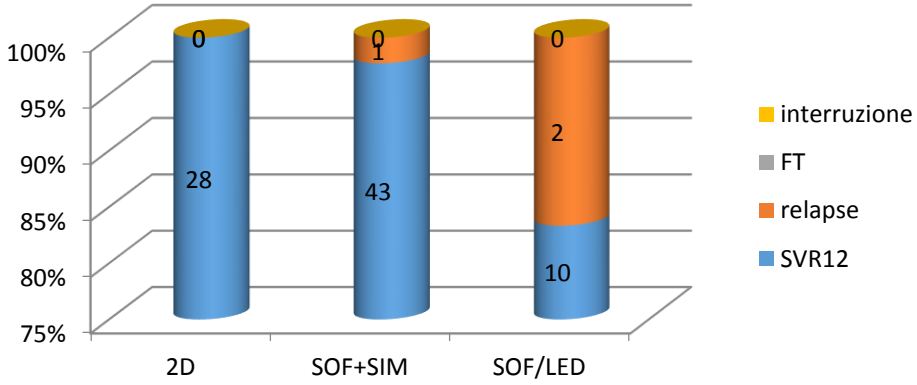
HCV/HIV



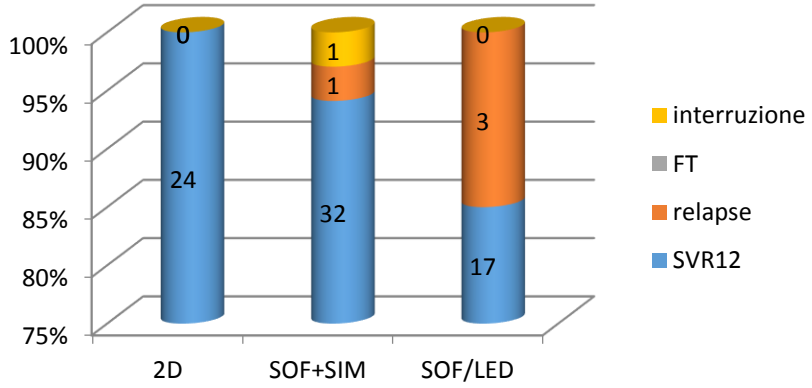
F3



HCV



F4



CONCLUSIONS

HIV co-infection did not affect the outcome of HCV treatment in a real life cohort.

In this study, we confirmed that genotype 3 HCV was associated with a lower SVR to DAA treatment.

In real life, high and similar rates of SVR were observed between mono- and co-infected pts.

SOF/DAC in genotype 3 and SOF/SIM and 2D in 4 were associated to better SVR, but because of the low number of failures this finding needs to be confirmed.

B. Menzaghi[1], E. Ricci[2], C. Magni[2], G. Parruti[3], L. Nicolini[4], G. Cenderello[5], F. Peruzzo[6], M. Gussio[7], R. Gulminetti[8], e P. Bonfanti[9] for the CISAI Group

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