

ADVANCES IN CHRONIC HEPATITIS C: MANAGEMENT AND TREATMENT

INDEPENDENT REPORTING ON AASLD 2016

COMPREHENSIVE EXPERT REVIEW AND DISCUSSION OF KEY PRESENTATIONS

AN INDEPENDENT CME ACTIVITY JOINTLY PROVIDED BY POSTGRADUATE INSTITUTE FOR MEDICINE AND VIRALD, INC.
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Hepatitis B Reactivation Associated with Direct Acting Antiviral Therapy for Hepatitis C: A Review of Spontaneous Post-Marketing Cases

S.J. Bersoff-Matcha, K.Y. Cao, M. Jason, A. Ajao, S.C. Jones, T. Meyer, A.D. Brinker

Abstract LB-17

HBV Reactivation Associated with DAA Therapy for HCV: A Review of Spontaneous Post-Marketing Cases

Age in years (n=29)	Mean (60.7) Median (58) Range (36-85)
Sex	Male (n=13) Female (n=16)
Country of Report	USA (n=5) Japan (n=19) Other (n=5)
Days to Event (n=28)	Mean (53) Median (46) Range (14-196)
Treatment Delay	Yes (n=7) Possible (n=7) No delay (n=2) No treatment given or treatment not stated (n=13)
HCV Genotype	Genotype 1 (n=16) Other genotype (n=2) Not reported (n=11)
Baseline HBV Viral Parameters	HBsAg (+) n=13 HBsAg (-) n=4 HBsAg Not reported n=12 HBcAb (+) n=6 HBcAb Not reported n=23 HBsAb (-) n=3 HBsAb Not reported n=26 HBV DNA undetectable n=16 HBV DNA detectable n=9 HBV DNA baseline either not reported or detectability status unclear n=4
Outcome	Death (n=2); Transplant (n=1); Hospitalization (n=6); Other (n=20)
DAA Therapy	Discontinued (n=10); Completed (n=13); Not Reported (n=6)
Treatment for HBV	Entecavir (n=9); Tenofovir (n=6), Tenofovir/Emtricitabine (n=1); Not Reported (n=6); No Treatment (n=7)

Baseline HCV/HBV Virological Characteristics and DAA Used

Case #	HBsAg	HBsAb	HBcAb	HBeAg	HBcAb	HBV DNA in IU	Direct Acting Antiviral (DAA)
1				NEG	POS	2700 (elevated)	OBV/PTV/r + DSV/RBV
2	POS		POS	NEG	POS	2.5 log (elevated)	DCV/ASV
3				NEG	POS	Undetectable	DCV/ASV
4	POS			NEG	POS	3.9 log (elevated)	DCV/ASV
5				NEG	POS	2300 (elevated)	SIM/SOF
6	NEG	NEG	POS			Undetectable	SIM/SOF
7	NEG	NEG	POS			Undetectable	SIM/SOF/RBV
8	POS					244 (elevated)	SOF/RBV
9	NEG	NEG	POS	NEG	POS	Undetectable	LDV/SOF
10	POS					Undetectable	LDV/SOF
11			POS			Undetectable	LDV/SOF
12	POS			NEG	POS	Undetectable	SIM/PEG/RBV
13	POS			NEG	POS	Undetectable	SOF/RBV
14	POS					1.3 log (elevated)	LDV/SOF
15	POS			NEG	POS	2.7 log (elevated)	DCV/ASV
16						Undetectable	LDV/SOF
17	POS		POS	NEG	NEG	Undetectable	DCV/SOF/RBV
18				NEG	POS	3.6 log (elevated)	LDV/SOF
19	POS			NEG	POS	<2.1 log	DCV/ASV
20	POS			NEG	POS	Undetectable	DCV/ASV
21				NEG	NEG	Undetectable	DCV/ASV
22						<2.1 log	DCV/ASV
23						Undetectable	LDV/SOF
24				NEG		3.3 log (elevated)	DCV/ASV
25						Undetectable	DCV/ASV
26	POS					<2.1 log	LDV/SOF
27						Undetectable	DCV/ASV
28	NEG					NR	LDV/SOF/RBV
29	POS				POS	Undetectable	LDV/SOF

Blank cell = test result not reported

Bersoff-Matcha S, et al. 67th AASLD; Boston, MA; November 11-15, 2016; Abst. LB-17.

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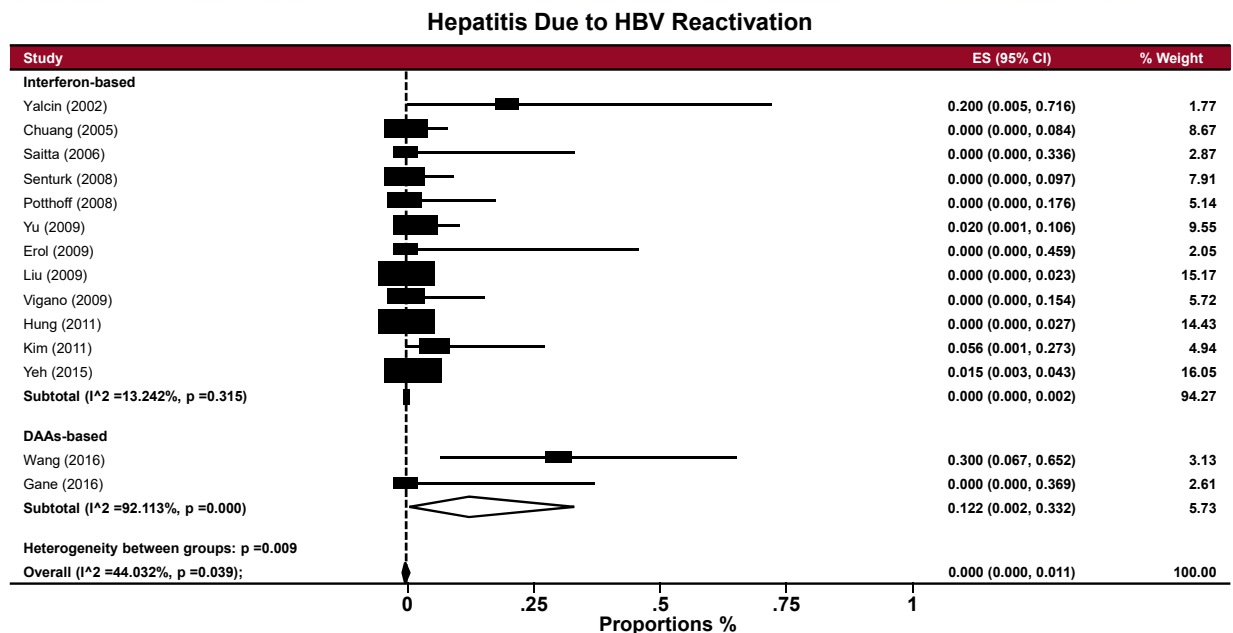
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Hepatitis B Reactivation After Interferon-Based Therapy versus Pan-Oral Direct Acting Antiviral Agents in Chronic Hepatitis C Patients Co-infected with Hepatitis B Virus: A Systematic Review and Meta-analysis

Cheng Wang, Bing Li, Jing Chen, Huiming Liu, Dong Ji, Qing Shao, Xiaoyong Zhang, Vanessa Wu, Yudong Wang, Lei Lu, Jian Sun, Jinlin Hou, Guofeng Chen, George Lau

Abstract 918

HBV Reactivation After IFN Based Therapy vs. All Oral DAA HCV Therapy in HCV/HBV Coinfected Subjects



Wang C, et al. 67th AASLD; Boston, MA; November 11-15, 2016; Abst. 918.

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Incidence and Pattern of “De Novo” Hepatocellular Carcinoma in HCV Patients Treated with Oral DAAs

Antonietta Romano, Franco Capra, Sara Piovesan, Liliana Chemello, Luisa Cavalletto, Georgios Anastassopoulos, Valter Vincenzi, PierGirogio Scotton, Sandro Panese, Diego Tempesta, Martina Gambato, Francesco P. Russo, Tosca Bertin, Maurizio Carrara, Antonio Carlotto, Giada Carolo, Giovanna Scroccaro, Alfredo Alberti

Abstract 19

Arial Incidence and Pattern of “De Novo” Hepatocellular Carcinoma in HCV Patients Treated with Oral DAAs 2 pt.

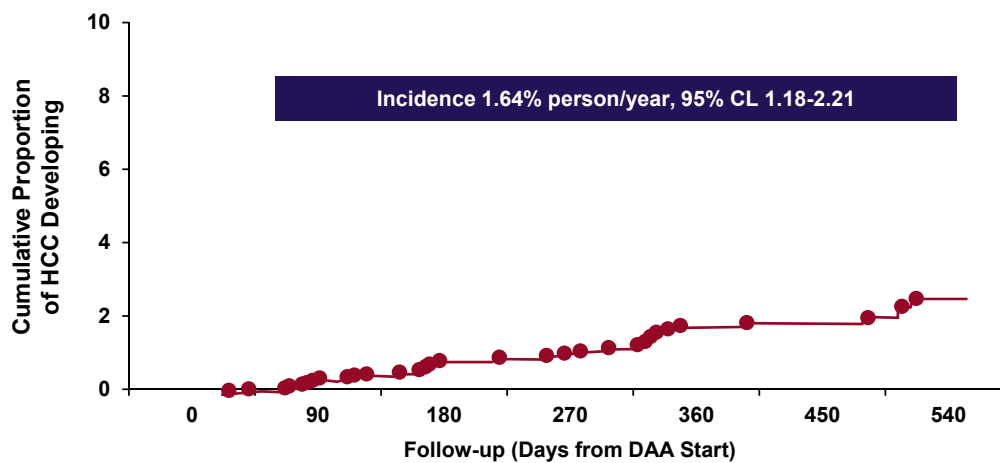
PATIENTS INCLUDED: 3075
Mean Follow-up: 300.8 ±100 days after initiation of DAAs

Baseline Characteristics		Baseline Characteristics	
Males/Females n (%)	1937/1138 (63/37)	Comorbidities	
Mean age years (range)	58.1±10.1 (18-90)	Diabetes n (%)	346 (11.2)
Genotype		Obesity n (%)	166 (5.3)
Genotype 1 a n (%)	588 (19.1)	CVD n (%)	456 (14.8)
Genotype 1 b n (%)	1320 (43)	DAA Regimens	
Genotype 2 n (%)	391 (12.7)	SOF/RBV 12-24 wks n (%)	563 (18.3)
Genotype 3 n (%)	524 (17)	SOF/SMV±RBV 12 wks n (%)	312 (10.1)
Genotype 4 n (%)	237 (7.7)	SOF/LDV±RBV 12-24 wks n (%)	1040 (33.8)
Genotype 5 n (%)	15 (0.4)	SOF/DCV±RBV 12-24 wks n (%)	449 (14.6)
Stage of Liver Disease		OMV/PTV/RTV±DSV±RBV 12-24 wks n(%)	711 (23.1)
Fibrosis F3 n (%)	853 (27.7)	Previous Therapy	
Cirrhosis CHILDA n (%)	2007 (65.3)	Naive n (%)	1719 (55.9)
Cirrhosis CHILDB n (%)	215 (7)	Experienced n (%)	1356 (44.1)

Romano A, et al. 67th AASLD; Boston, MA; November 11-15, 2016; Abst. 19.

Results: 41 Patients Developed HC During Follow-up

Cumulative Proportion of HCC in the Studied Cohort (Kaplan-Meier)



Follow-up Days	0	90	180	270	360	450	540
Patients at Risk	3075	2794	2163	1668	1188	651	263

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Results: HCC Incidence in Cirrhotics by Subgroups (Multivariate Analysis)

HCC Incidence in Cirrhotics by Subgroups (Multivariate Analysis)

Multivariate Cox's Regression (Forward Stepwise Selection)

	HR	95% CI	p
APRI Score ≥ 2.5	1.83	0.89-3.75	0.099
SVR-12	0.20	0.09-0.41	0.001

HCC risk increased linearly by 10% at each 1 point increase in APRI score

Variables included were: gender, HCV genotype, APRI score, Child Pugh stage, DAAs regimens, SVR-12

Romano A, et al. 67th AASLD; Boston, MA; November 11-15, 2016; Abst. 19.

HCC in Untreated HCV Patient

HCC in Untreated HCV Patients

LIVER

Natural history of compensated viral cirrhosis: a prospective study on the incidence and hierarchy of major complications

L Benvegñù, M Gios, S Boccato, A Alberti

Gut 2004;53:744-749. doi: 10.1136/gut.2003.020263

**Annual Incidence Rate of HCC in Untreated HCV patients:
2.8%**

VIRAL HEPATITIS

The Natural History of Compensated Cirrhosis Due to Hepatitis C Virus: a 17-Year Cohort Study of 214 Patients

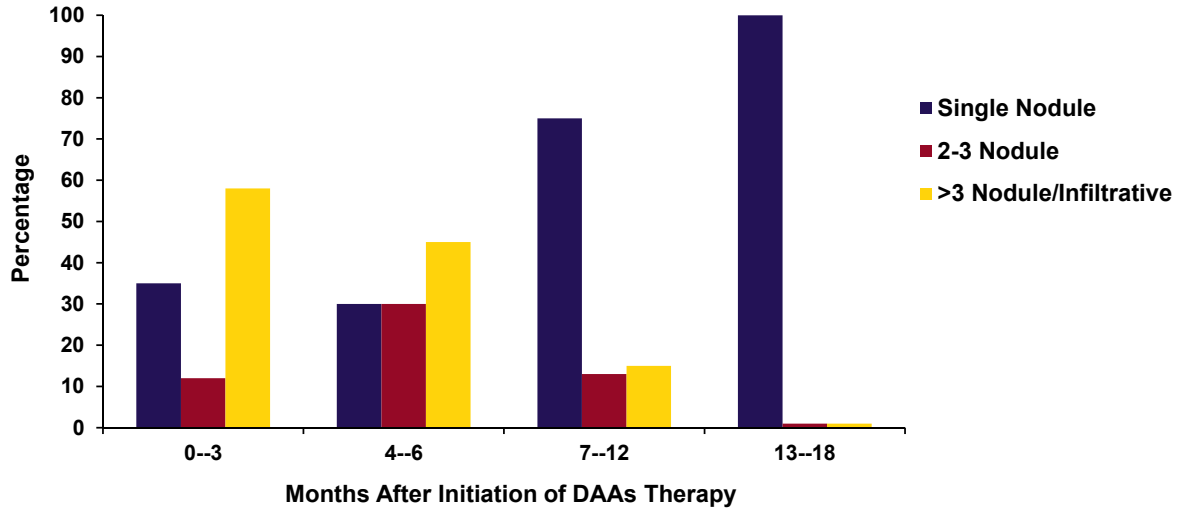
Angelo Sangiovanni,¹ Gian Maria Prati,¹ Pierangelo Fasani,¹ Guido Roschi,¹ Raffaella Romeo,¹ Matteo Manini,¹ Ersilio Del Ninno,¹ Alberto Morabito,² and Massimo Colombo¹

HEPATOLOGY 2006

**Annual Incidence Rate of HCC in Untreated HCV patients:
3.9%**

Romano A, et al. 67th AASLD; Boston, MA; November 11-15, 2016; Abst. 19.

Patterns of HCC Development in Relation to Timing of DAA Therapy



Romano A, et al. 67th AASLD; Boston, MA; November 11-15, 2016; Abst. 19.

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