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			HDV	
	300		HBs Ag	%5
			15	
	%20-5			
	%13-4		HBs Ag	
		ELISA		
HBsAg		311 B		
.anti-HD		%10.6	33	
(% 18,18)	6	(%3,03)	HBV+HBD	Coinfection
Surinfection			.HBV(Ag Hbe+)	
			(%81,81)27	(% 6,06) 2
	HBV	HBV Ag Hbe+		
	%81.81	surinfection	%18.18	coinfection
-Hbe Ag)		(Pre-C)		
B		% 11,2	(% 15,15)	(Anti-HBc IgM+

A study on the Spread of Delta Hepatitis among Patients with positive Australian Factor and its Influence on the Development of Hepatitis Infection

Tahani Ali*

Nizar Al daher*

Ziad Darwich*

Abstract

Delta hepatitis virus (HDV) constitutes a major health problem, its mean average spread in the world is 5 % of the 300 million carriers of the HBsAg. This means that the number of people infected with Delta hepatitis is 15 million as a minimum in the world.

Since this disease is common in the countries lying on the Mediterranean Sea where the mean average spread of Delta hepatitis is 5-20 %, this study has been done to realize the mean average of Delta hepatitis virus among the carriers of HBsAg in Syria where its average spread is 4 – 13 %.

This study has been done according to the immune –enzymology (ELISA) to find out the serological test of Delta hepatitis virus and serological test of B Viral hepatitis in 311 positive specimen of HBsAg. The Finding was as follows: 33 specimens (10.6 %) confirm the existence of anti – HD.

As for HBV and HBD infection, six cases (18.18 %) of them were Co-infection and one case (3.03%) was severing coinfection and its early stage because of the existence of viral multiplication of the HBV (Ag HBe+). The rest of the cases 27 (18.81%) were Sur-infection among which two cases (6.06%) were accompanied by viral multiplication of Ag HBe+ of the HBV. the study concludes that the spread of Delta hepatitis among those infected by HBV was great and it constitutes a health problem because of the high average of infection by HBV. This appears in the form of coinfection in 18.18% in the form of sur-infection in 81.81% of the cases.

Another worthwhile conclusion of the study is the high average of chronic Pre-C hepatitis with recurrence of multiplication of HBe Ag with anti – HBe IgM (15.15%) versus 11.2% in B viral hepatitis alone.

*Instructor. Department of Laboratory, Faculty of Medicine. Damascus University.

*Ass. Prof. Department of internal Medicine, Faculty of Medicine. Damascus University.

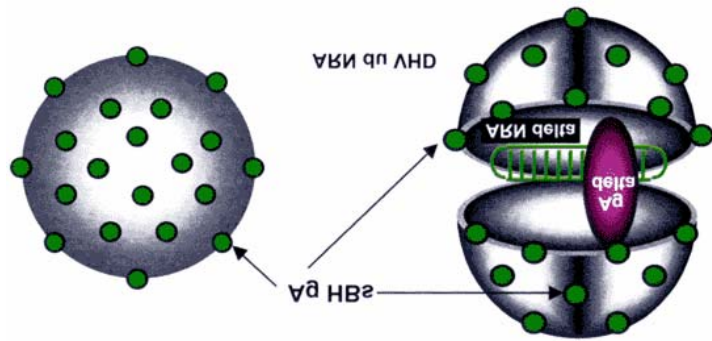
*Prof. Department of internal Medicine, Faculty of Medicine. Damascus University.

Pr 1978 :introduction

(7) Mario Rizzotto

(2) Hepadnavirus

D



(4.1) HBV HDV (12) 37-35

co infection

(1) HBV (8) HBs Ag
 HDV HDV ()
 (1) RNA
 HDV (3)
 HDV (4) (2,4,7)
 (1,8). HBV (12)B
 (4,5)

(6) (1)%2 %1
 (%5)B (12)
 HDV :
 %20-5 HBs Ag
 (1)
 300 %5 HBV
 HBsAg (1·2·7·10)
 -5 (11) %60
 15 D %1
 .(7)
 :
 (8) HBS Ag
 HDV (1)
 HBV
 co infection %33-19.3
 HBV) HBS Ag
 surinfection (%13-7 HBS Ag
 %61.5

(7,10)% 70-60 :co infection -1
B
%20 %95-90
(12) 5-2
(7) %20-10
B+D co infection -1 D (1·8) %5
(5) Surinfection
+ B
HBV+HDV
(11) HBV :Surinfection -2
()
%20-2 HDV
HBV %70-50
(10) HCV
()
(1) HBV
HBV+HDV +
HBV
HDV
HDV (1·8·11) (%90-70)

(12) 12-2

(6)(6-4) HBV

surinfection HBV+HDV

_____ HDV

∴

anti-HD Ag-HD D, B co infection

4-2

anti-HD IgM M : _____

5-2

G

anti-HD IgG

(1))

(2 4) ("homosexual"

(2,8) (12)

Co infection : -1

B-D

HBs Ag+, anti-HBc IgM+, anti-

HBs Ag HD IgM+

HBV (10 12)

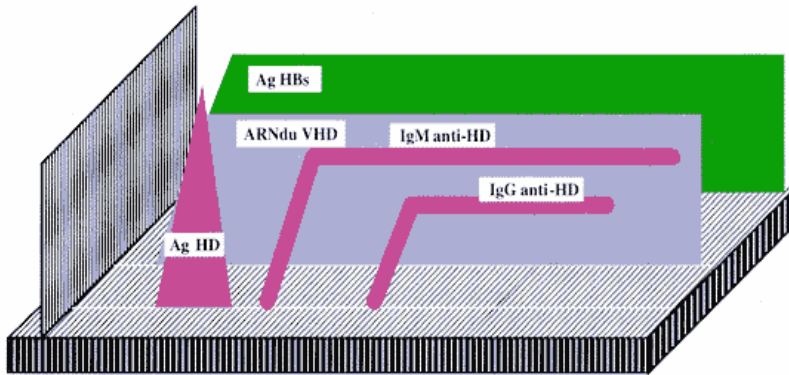
HDV.

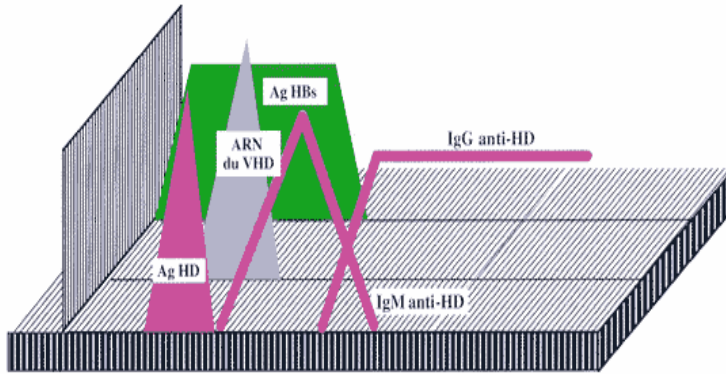
surinfection : -2

HBs Ag+, anti-HBc IgM-, HBe

Ag-, anti-HBe +anti-HD IgM+

(IgG Anti-HD) : Co infection -3
 HBs Ag+, HBe Ag -, anti-HBe +,
 anti-HD IgM+, anti-HD (IgG) +
 (9.7)
 anti-HD Ag-HD Ag- surinfection
 ,(RNA) HD
 IgG anti- G
 (4) IgG anti-HD HD
 IgM





: :

B

B

/ 9MI

(8·10²)D

(2) 48

B

(1) 6-4

HDV

(1·10) HBs Ag

.D

HBs Ag

(8)

RADIN

BIOTEC

objectif:

:

-1

:HBV

-

anti-HBc totaux, anti-HBc M B

IgM %4

anti-HBe Ag, - %13

HBe (13)

-2

HDV

anti-HD

-

IgM

M -

anti-HD . B

HD-Ag -

materials :

SGOT, SGPT: -

and methods

specimens:

immuno-

enzymatologie (ELIZA)

(HBs Ag) B

HBs Ag B

results: -

311

HBs Ag

33

anti-HD

2002

%10.6

.2003

1

Anti-HD -	Anti-HD +	
278	33	311
%89.4	%10.6	%100

anti-HD

17

176

%51.51

%9,65

(%56.59)

:2

anti-HD	anti-HD		
159	17	176	
119	16	135	

HDV

anti-HD (%43.40) 135
 . 16
 HBV, HBD %48.48
 (%18,08) 6 . %11.85
 Co infection HD-Ag
 (%3,03) 88
 HBsAg
 HBV(Ag HBe+) (%4.54) 4
)
 (%81,81)27 HBe Ag e ()
 2 Surinfection (%3.40) 3
 (% 6,06) .HBc IgM
 HBV Ag HBe+ anti-HD IgM
 31
 HBbsAg

:3

surinfection	Co infection	
14	3	
13	3	

:4

%	Anti-HBe	HBe Ag	HBs Ag	Anti-HDV	HBe IgM		
15.15	+	-	+	+	+	5	
75.75	+	-	+	+	-	25	
6.06	-	+	+	+	-	2	
3.03	-	+	+	+	+	1	

HBV, HDV

% 11,2 Anti-HDV

(pre-C) HBs Ag

HBe) %3,31 287

(Ag -,HBe IgM+ B

(HBe Ag+,HBe IgM+)

HBe Ag-, Anti-HBe +, HBe) % 9,12

.%76,34(IgM-

(HBe Ag+,HBe IgM-)

:5

anti-HBe	HBe Ag	anti-HBe IgM	anti-HBe Total	%	B
+	-	+	+	11,2	(pre-C)
-	+	+	+	3,31	
-	+	-	+	9,12	
+	-	-	+	76,34	

HDV B

:6

% B	% B, D	B
3,31	3,03	
11,2	15,15	(Pre-C)
9,12	6,06	
76,34	75,75	

B HBV+HDV

.HBs Ag

Discussion:

%33-19.3

%10.6

HBV

B

%7-4

anti-HD

%13

%60-5

HBV

.%5

-5)

%48.6

(%20

%10,6

HBV

)

%4-2.6 HBs Ag

(

(13) %13.48-12.59

HBV anti-HBc
 (13)
 %15
 surinfection
 %84.84
 B
 surinfection
 176
 surinfection 17 (%56.59)
 B+D
 %6.06
 surinfection
 HBV %9.65
 (%43.40) 135
 16
 HBs Ag+
 anti-HDV
 .%11.85
 (76,34/75,75)
 (3,31/3,03) (P>0.05)
)
 (HBe Ag + Co infection
 6,06 D %15.15
 B % 9,12 % %3.03

SGPT, SGOT

50·103 : (HBe Ag Pre-C)
HBV↓PCR)

conclusion: (HBc IgM
B
%10.6 % 11,2 % 15 15 D
HBV . B

HBV Ag-HD
%18.18 co infection
surinfection
%81.81

.anti-HD IgG

Anti-HBc -HBe Ag)
%11·2 (% 15,15) (IgM+
. B .co infection

% 6,06: surinfection
B % 9,12



D
B
) B
(HBs Ag,,anti-HCV,anti-HAV pre-C
HBc Ag
PCR B PCR-DNA-HBV
B
HBsAg
HBs Ag
HBs Ag .B+D
HBs HBV
Ag

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B

- 13

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