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(259)					
.2003	2000	4			
(2.9)		(112) A			
5				1000	
	.%21.4		%76		
	1000	(1.08)	(42)	B	
%43	10				
% 50				% 21.4	
%35.7				%61.9	
		%69			

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		%50	.	% 52.4	e	
		C			.	%14.3
1000	(2.7)			(105)		
				%6.7		
				%75	.	%82
		%67.6				%20
				%97.6		
		%9.5		%74.3		.(1a)
.C	B			6	.	

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## **Epidemiology of Hepatitis in Children at the Children Hospital of Damascus University**

**Isam Anjak\***

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### **Summary**

The aim of this study is to evaluate the epidemiology of viral hepatitis in children in Damascus University children hospital. A retrospective study on (259) cases of viral hepatitis admitted to hospital within 4 yrs from the beginning of 2000 to the end of 2003. The number of hepatitis A virus cases was (112) cases with an average of 2.9/ 1000 of admissions yearly. More than a half of cases were between 1-5 years of age. The most common symptoms and signs were jaundice, fever and hepatomegaly. About 76% of cases were cured or improved, 21.4% of them were died. For hepatitis B virus the number of cases was (42) cases with an average of 1.08/ 1000 of admissions yearly. Many cases were below 1 year and above 10 years of age. 43% of patients didn't get any dose of vaccination. The surface antigen in mother was positive in 21.4% of cases as a predicting factor but the transmission of the blood or one of its derivatives was found in 50% of cases.

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Jaundice was found 35.7% of cases and there were no symptoms in 61.9% of cases. clinically hepatomegaly was present in 69% of cases. HBeAg was positive in 52.4% of cases. Half of cases were improved, 14.3% were died. For hepatitis C virus the number of cases was (105) cases with an average of admission of 2.7/ 1000 admissions yearly and we noticed an important increase in cases in the last year. Cases were found in all age groups and we found 6.7% of cases in the first year of life. The transmission of the blood or one of its derivatives with other predicting factors like surgery was found in 82% of cases. Jaundice was found 20% of case and there were no symptoms in 67.6% of cases. Clinically hepatomegaly was present in 67.6% of cases. The polymerase chain reaction (PCR) test was positive in 97.6% of done cases and the genotype (1a) was predominant. 74.3% of cases were improved while death was happened in 9.5%of cases and it was the result of the underling factors. There was 6 cases of hepatitis B and C in the same time.

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-5 :

-6

-7

-8

Parvovirus B 19 -9 :(1)

-10

(1) -1

(1) A,B,C,D,E,F,G

(1) -2

:

-3

-4

(2)

HGV RNA	HEV RNA	HDV RNA	HCV RNA	HBV DNA	HAV RNA	( )
	40	4.2	9.7	-100 120	30	

(1) (2)

:A -1

1.5 2000

%84 A

%50 3 .(2)

---

IgM .(3) 4-3  
IgG

%2-1  
6-4

.(1)

.(5)

%20-10 A

.(6)

**:B** -2

%90

A

0.5

.(1)

.(7)

:C

-3

anti-HBc

HBcAg و DNA

anti-HBs

anti-HBe

.anti-HBc

6

HBcAg

.(8)

.(3)

.(1)

(EIAs )

-RNA)

.(1)( PCR B



:F -6 2  
. (1)  
:G -7 % 40  
B %80 1  
C . (9) 3,2

. (1) . (1)  
: :D -4  
:  
B  
. (1)  
:E -5  
( )  
A  
A  
. (1) 15



:

C

2000/1/1  
(259) 2003/12/31

A,B,C

E,D,G

:

:

(282)

IgM A

(259) .A

.C B A

B

(3)

		C	B	A	
43	6	2	11	24	2000
66	7	12	8	39	2001
52	4	14	8	26	2002
121	6	77	15	23	2003
282	23	105	42	112	

(3)

:A

A A

(112)

(4)

1000			
2.2	10692	24	2000
4.1	9473	39	2001
2.9	9117	26	2002
2.4	9551	23	2003
2.9	38833	112	

A

(4)

(5)

1.8	2	- 0
51.6	69	5 - <
25.9	29	10 - 6
10.7	12	14 - 10 <
	112	

(5)

% 39.3 %60.7

(6)

27.7	31	
51.8	58	
20.5	23	
	112	

(6)

(7)

46.4	52		84.8	95	
42	47		67	75	
24.1	27		59.8	67	
83.9	94		46.4	52	

(7)

:

A

C B

(8)

75	84	10 < SGPT
23.2	26	10 > SGPT
1.8	2	SGPT
39.2	97/38	%60 >
93.4	91/85	
62.5	64/40	

(8)

(9)

93/93	IgM A
96/96	IgG A
100/1	
83/83	C

A

(9)

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(10)

75.9	85	
20.5	23	
0.9	1	
2.7	3	/
	112	

(10)

:B

-1

B B

(42)

(11)

1000			
1.03	10692	11	2000
0.84	9473	8	2001
0.88	9117	8	2002
1.57	9551	15	2003
1.08	38833	42	

B

(11)

(12)

33.3	14	- 0
21.4	9	5 - <
21.4	9	10 - 6
23.8	10	14 - 10 <
	42	

(12)

% 19 %81

B

.(13)

42.9	18	
16.6	7	
7.1	3	
16.6	7	
16.6	7	

(13)

.(14)

21.4	9	
21.4	9	
9.5	4	
9.5	4	
9.5	4	
2.4	1	
26.2	11	
	42	

(14)

.(15)

4.8	2		40.5	17
2.4	1		16.6	7
61.9	26		4.8	2
26.2	11		69	29

(15)

---

A

C B

.(16)

26.2	11	10 < SGPT
59.5	25	10 > SGPT
14.3	6	SGPT
38.9	36/14	%60 >
40.5	17	
63.6	11/7	

B

(16)

B

(17)

100	42	
52.4	22	HBeAg
23.8	10	AHBeAb
86.7	15/13	AHBeAb
47.6	20	HBV-DNA PCR
14.3	6	AHCV
100	17/17	AHAVIgM

B

(17)

%92.3            24            26

.(18)

50	21	
11.9	5	
2.4	1	
14.3	6	/
21.4	9	
	42	

**B**

**(18)**

**:C**

**- 3**

**C**

.(19)

.(105)

**C**

<b>1000</b>			
0.2	10692	2	2000
1.3	9473	12	2001
1.5	9117	14	2002
8.1	9551	77	2003
2.7	38833	105	

**C**

**(19)**

**(20)**

6.7	7	- 0
37.1	39	5 - <
41	43	10 - 6
15.2	16	14 - 10 <
	105	

**(20)**

% 36.2            % 63.8

.(21)

42.9	45	
25.7	27	
13.3	14	
8.6	9	
3.8	4	
5.7	6	
	105	

(21)

.(22)

4.8	5		20	21	
2.9	3		4.8	5	
74.3	78		7.6	8	
29.5	31		67.6	21	

(22)

:

C B A

.(23)

12.4	13	10 < SGPT
71.4	75	10 > SGPT
16.2	17	SGPT
20	21	
20	75/15	%60 >

C

(23)



C

(24)

100	105	AHCV
5.7	6	HBsAg
97.6	42/41	HCV-RNA PCR
69.2	52/36	AHAVIgG
100	44/44	AHAVIgM

C

(24)

(23)

.%75.4      46      16      1a

:      4a

.(25)      .      6

(61)

75.2	79	
11.4	12	
9.5	10	
1	1	
2.9	3	
	105	

C

(25)

:

B

(10) A

C

:

B

C :A

---

-10 )

:A

-1

,(13)

( %30 A

( )

1944 A

%84

(112)

160

4

4

16

2003- 2000

4.1 2.2

.(14)

1000 2.9

39

2001

5

1000/4.1

14-5

(5)

10-5

10-6

(11)

,

.(12)

100000/3.77

%42

(5) %40

2/3

.(15)

(%83.9) % 27.7

%98.2 423

10 %75 288

%17

.(15)

%93.4 %84.8

<

%39.2 %60

%62.5 %82.6

(9) 14

96 IgM %67

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%5.8 B 93 IgG  
 (%67.6)  
 .(16) 9  
 :B -2  
 B  
 A,C .

%76

42

24

23

%21.4

1993

%0.1-0.02

(5)

(17) %1.2

37

% 3.8 و %1.1

A

.(18)

%26.4

A

%81

46/28

.(19)

9

%21.4

10

,1993

%43

%23.7

%40.5

%61.9

(7)

%69

e

%21.4

c

e

---

20

6 C %85.7  
IgM A

17  
26

e  
24 . c

e  
%38.9 %60

%40.5  
7

6  
5 %52.4 e

7 %21.4 %23.8

(19) 46/9 e  
%86.7 c

(20) %5.8 B  
.(16)  
( ) : C -3  
. (21) C  
10-6 2001  
1000 0.2 2000  
%6.7  
, 8.1 2003  
1000  
(21 ,19) %82  
.(22)  
%74.3 %12.4  
B  
%34.8  
%18.2 %22.7



B

%67.6

%20

44 A  
IgM

,18)

%23.8

.(21 ,20 ,19

%89.5

52 IgG

%10.5

%69.2

,C

% 20

%60

C

42

%97.6

41

6



.(23) %82.9

(1a)

6 C B

(25 ,24 ,19)

.(22)

61

4

%75.4

B

7

92

%74.3

60

10

47 B

33 C

.(26)

6

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