THE RESULT

Table (12) :according to the age in the study cases:

Study groups / Age groups	No	%	z	P
<6	16	40.0%	1.26	>0.05
>6	24	60.0%		
Total	40	100.0%		
Means ± SD of age	6.95 ± 3.18			

Figer (26): according to the age in the study cases:

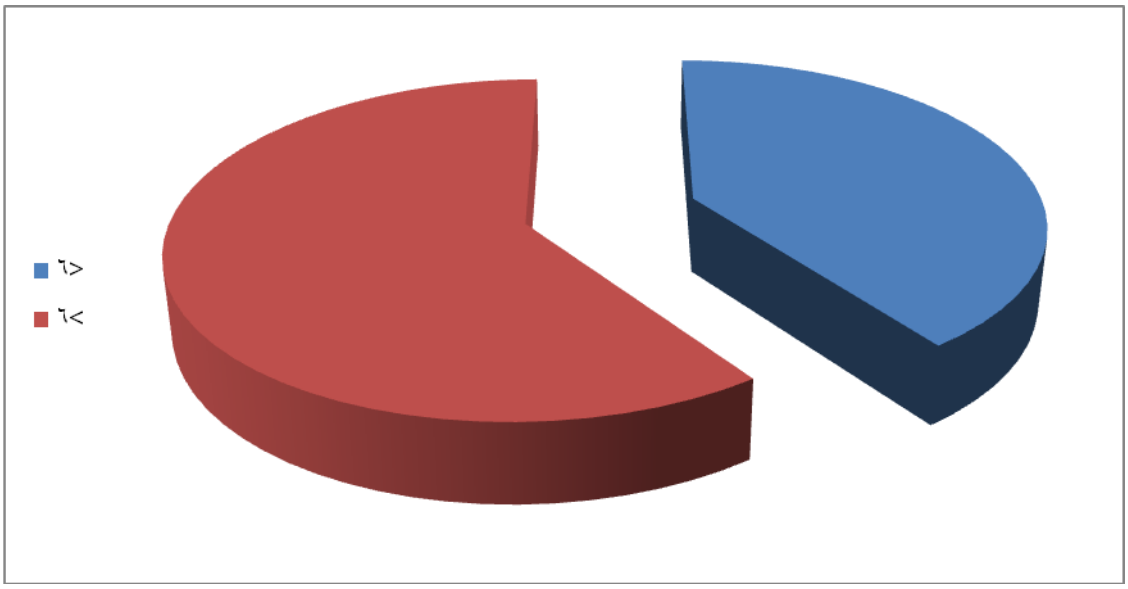


Table (12) , Figer (26) and chart (1) show :

According to the age in the study cases::

Mean age among the study group is 6.95 ± 3.18, number of cases < 6 is 16 cases {40%} and >6years is 24 cases {60%} with no significant difference {p > 0.05}

Table (13): sex distribution of the study cases:

Study groups / Age groups	No	%	z	P
Males	24	60.0%	1.26	>0.05
Female	16	40.0%		
Total	40	100.0%		

Figer (27): sex distribution of the study cases:

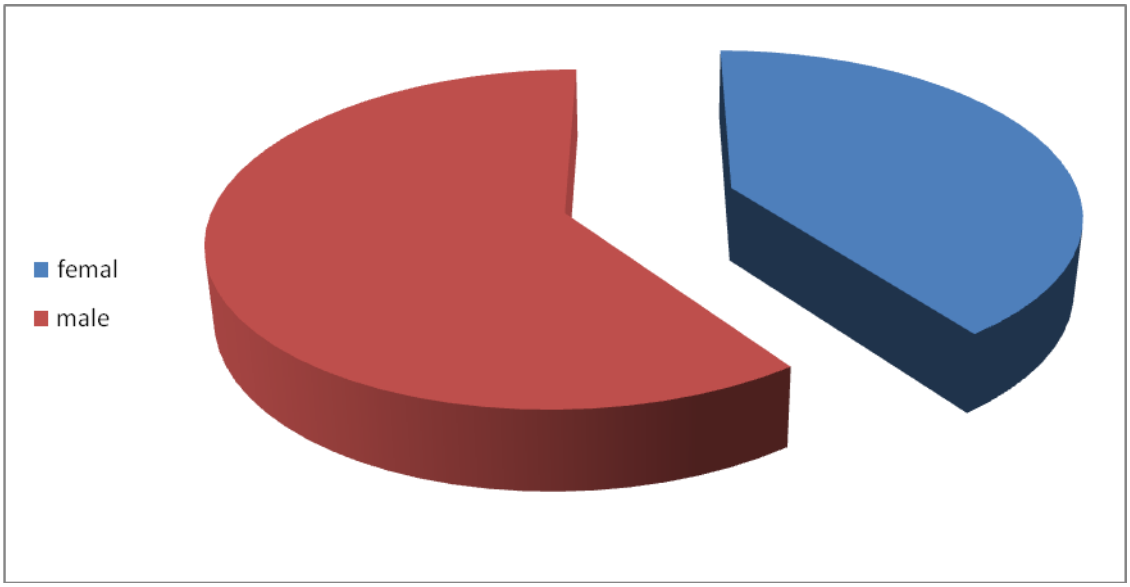


Table (13) ,Figer (27) and chart (1)show sex distribution of the study cases:

Twenty four cases {60%} of male patients and 16 {40%} are female patient of the study group with no significant difference {p > 0.05}

Table (14) :distribution of the study cases according to residence

Study groups / residence	No	%	z	P
Rural	22	55.0%	0.63	>0.05
urban	18	45.0%		
Total	40	100.0%		

Figer (28) :distribution of the study cases according to residence

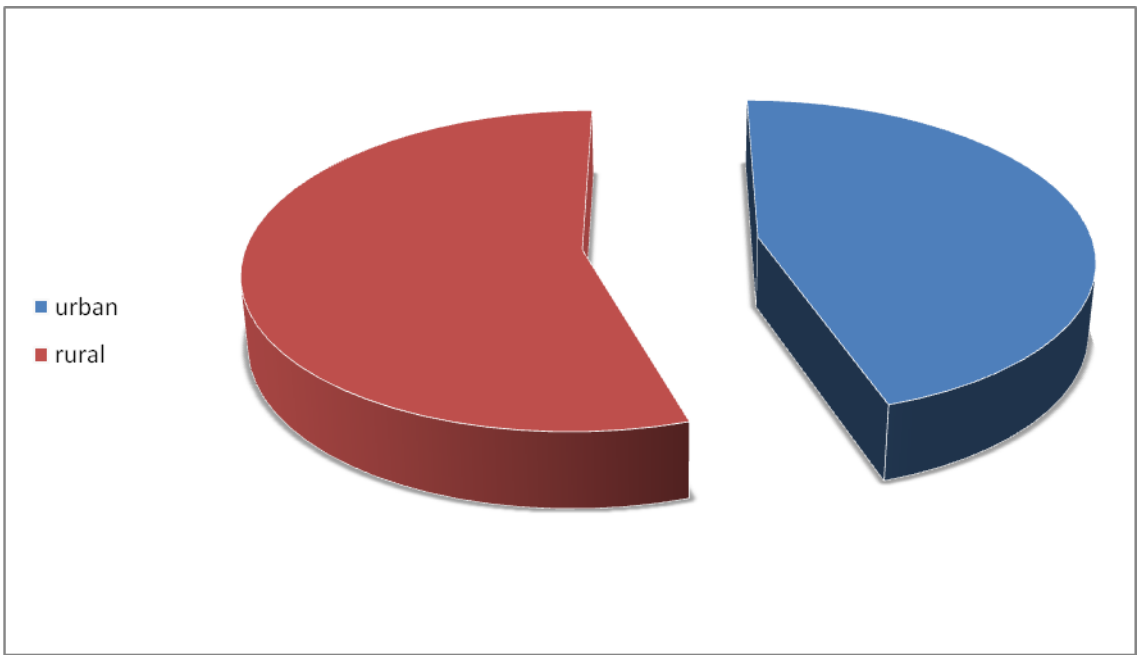
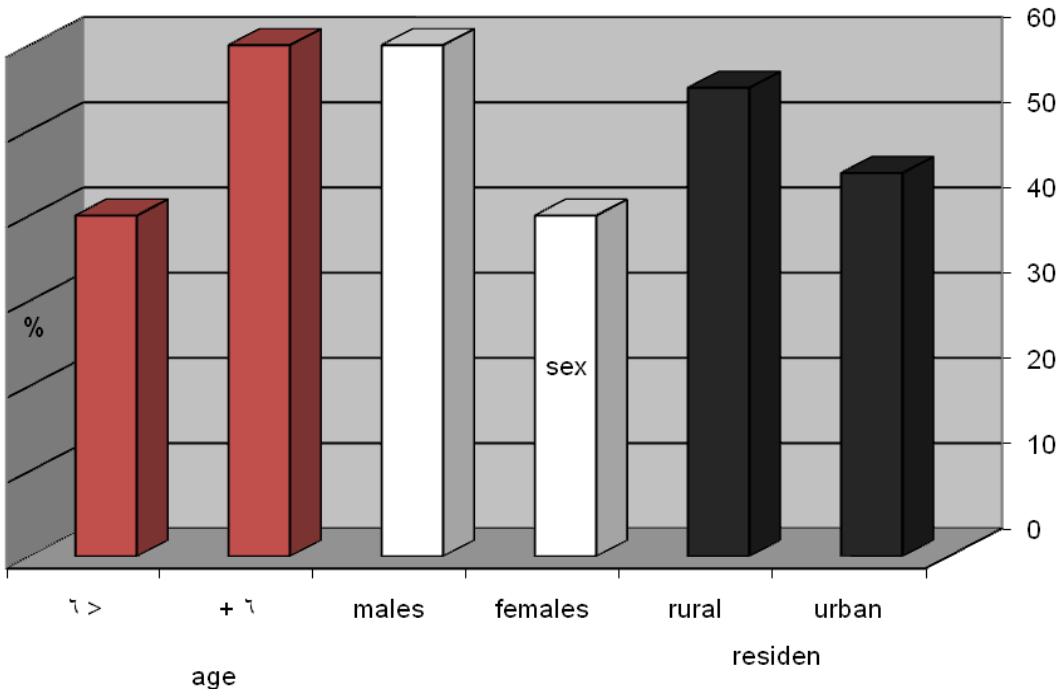


Table (14) , Figer(28) and chart (1)show distribution of the study cases according to residence :

Twenty two cases{55.0%} from rural areas while 18 {45.0%} cases from urban areas with no significant difference {p > 0.05}

Chart (1) sociodemographic data of the study group



No statistical significant difference as age ,sex and residence in the study group

Table (15) :complaint among the study cases:

Study groups / Present history	No	%	z	P
1-vomiting -yes -no	 15 25	 37.5 62.5	1.58	<0.05
2-diarrhia -yes -no	 2 38	 5.0 95	5.69	<0.001
3-abd. Pain -yes -no	 23 17	 57.5 42.5	0.95	>0.05
4-anorexia -yes -no	 33 7	 82.5 17.5	4.11	<0.001
5-jaundice -yes -no	 39 1	 97.5 2.5	6.01	<0.001
6-dark urine -yes -no	 33 7	 82.5 17.5	4.11	<0.001

Chart (2): complaint among the study groups

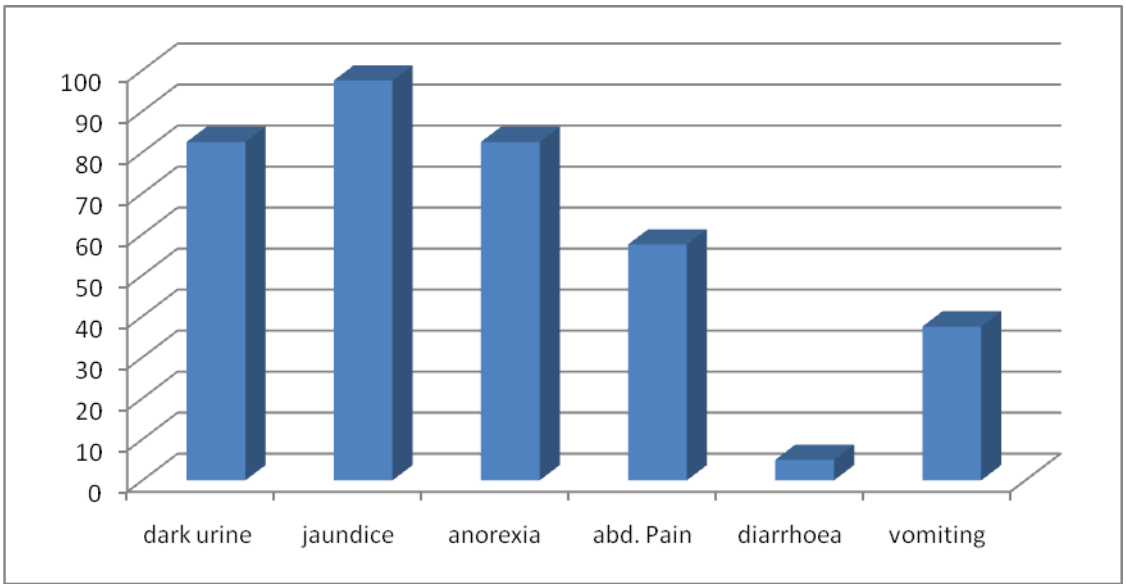


Table (15) and chart (2) show complaint among the study cases :

In the present history and complaint of the patient

About thirty nine {97.5%} of the patient mother noted the yellowish coloration of the eye of the child and presented with it with {p < 0.001}it is highly significant in acute hepatitis . 82.5% {33 cases} are presented with dark urine and anorexia with {p < 0.001}it is highly significant.

37.5% of acute hepatitis are presented with vomiting {15 cases} with significant difference {p <0.05}.

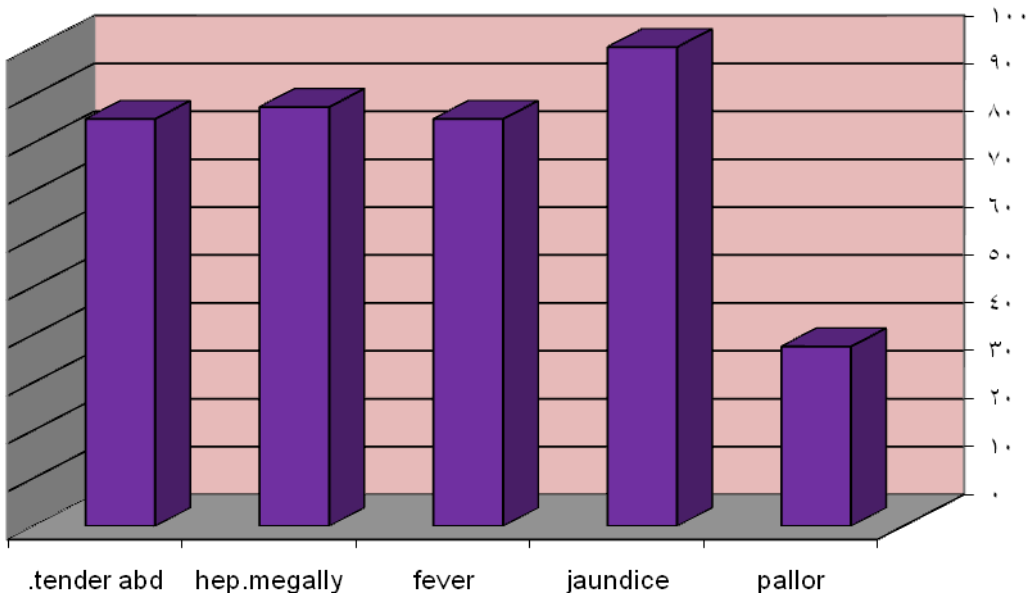
٩5% are presented without diarrhea {38 cases} with {p < 0.001}it is highly significant in acute hepatitis as diarrhea not a common symptoms in acute viral hepatitis.

57.5% of the children are presented with abdominal pain {23 cases } with no significant difference {p > 0.05}.

Table (16) : clinical finding among the study cases:

Study groups / clinical finding	No	%	z	P
I- Local				
1-Tender abd.				
-yes	34	85.0	4.43	<0.001
-no	6	15.0		
2-Hep. Meg.				
-yes	35	87.5	4.74	<0.001
-no	5	12.5		
II-General				
1-Fever				
-yes	34	85.0	4.43	<0.001
-no	6	15.0		
2- jaundice				
-yes	40	100.0	8.94	<0.001
-no	0	0.0		
5- Pallor				
-yes	15	37.5	1.58	<0.05
-no	25	62.5		

Chart (3) clinical findings among the study group



Abd.=abdomen ,,,Hep.meg.=hepatomegaly.

Table (16) and chart(3) show clinical finding among the study cases :

All cases are presented with jaundice {p < 0.001}it is highly significant in acute hepatitis ,about 15 cases presented with pallor 37.5% {p <0.05}with significant difference ,85% { 34 cases}of acute hepatitis patient are presented with fever{p < 0.001}which is highly significant frequent in acute hepatitis .

By local examination about 85% (34 cases) there is tender abdomen and also found about 85.5% (35 cases) with hepatomegaly {p < 0.001}it is highly significant frequent in acute hepatitis in children for both.

Table (17): Range and means ($\bar{x}$) ± standard deviations (SD) in liver function among the study groups

Clinical investigation	Range	$\bar{x}$ ±SD
1-T. Bili.	1.2 - 16.5 mg /dl	5.01 ± 3.2
2-D. Bili.	0.6 – 13 mg /dl	3.76 ± 2.68
3- Ind. Bili.	0.2 – 4 mg /dl	1.28 ± 0.94
4- ALT	30 – 120 IU/L	77.30±70.1
5- AST	16 – 102 IU/L	72.15 ±71.4

T.BILI= Total bilirubin ,D.BILI=Direct bilirubin, Ind.bili=indirect bilirubin ,AST= Aspartate aminotransferase.,ALT= Alanine aminotransferase.

Total serum bilirubin ,D. bilirubin, Ind. Bilirubin ,ALT and AST are significantly increase in acute hepatitis where total bilirubin rang is 1.2 - 16.5mg /dl with mean and SD is 5.01 ± 3.2.

D.S.B {direct serum bilirubin}rang is 0.6 – 13 mg /dl with mean and SD is 3.76 ± 2.68.

Ind. Bilirubin rang is 0.2 – 4 mg /dl with mean and SD is1.28 ± 0.94.

ALT rang in acute hepatitis is 30 – 120 IU/L with mean and SD is 77.30±70.1

AST rang in acute hepatitis is 16 –102 IU/L with mean and SD 72.15 ±71.4

Table (18) : Hepatitis viral infection markers among the study cases:

Results / viral infection markers	+ Ve NO	+ Ve %	-Ve NO	-Ve %	Total NO	Total %
1-HAV.Ab	39	97.5	1	2.5	40	100.0
2-HBS.Ag	1	2.5	39	97.5	40	100.0
3-HBS.Ab	17	42.5	23	57.5	40	100.0
4-HCV.Ab	0	0.0	40	100.0	40	100.0

Chart (4) hepatitis viral infection markers among the study group

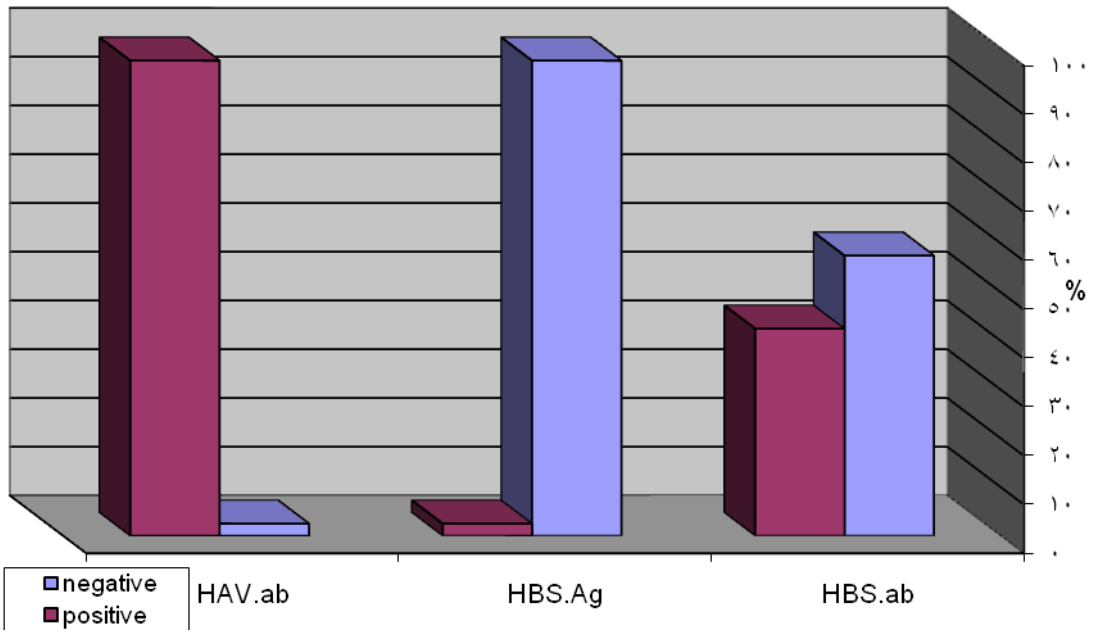


Table (18) and chart (4) show Hepatitis viral infection markers among the study cases :

Thirty nine cases {97.5%} are positive for anti –HAV IgM , one case {2.5%} is positive for HBsAg , 17 cases {42.5%} are positive for HBs Ab. no case positive to HCV antibodies among the study group.

Table (19): Type of viral antibodies according to age group

Type of virus Ab. / Age groups	HAV.Ab NO	%	HAV.Ab + HBV.Ab NO	%	Total NO	%	z	P
<6	0	0.0	16	94.1	16	40.0	6.01	<0.001
>6	23	100.0	1	5.9	24	60.0	3.8	<0.001
Total	23	100.0	17	100.0	40	100.0		

Chart (5) types of viral antibodies according to age groups

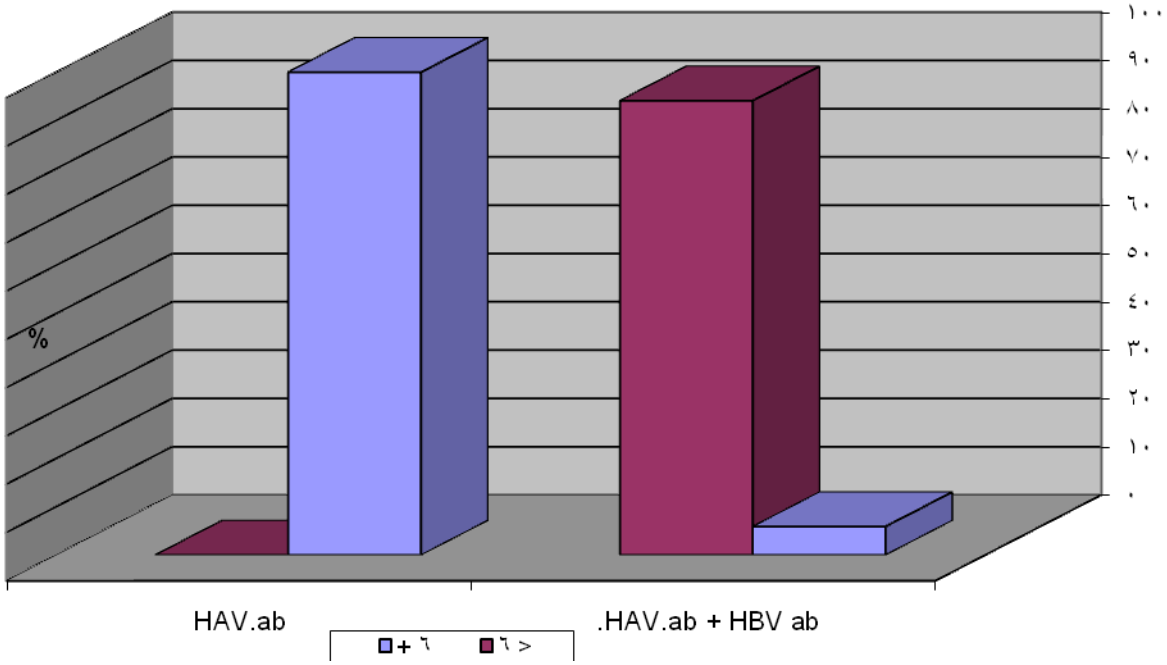


Table (19) and chart(5) show Type of viral antibodies according to age group :

According to the age group the viral markers are :less than 6 years there is16 cases are positive to HAV and HBV antibodies {p < 0.001}it is highly significant in acute hepatitis.

6 years and over there is 24 cases ,23 cases of them are positive for HAV antibodies only and one case is positive to HAV and HBV antibodies {p < 0.001}it is highly significant in acute hepatitis.

Table (20): Type of viral antibodies according to sex

virus Ab. / sex	HAV.Ab NO	%	HAV.Ab + HBV.Ab NO	%	Total NO	%	z	P
Males	13	56.5	11	64.7	24	40.0	0.33	>0.05
Females	10	43.5	6	35.3	16	60.0	0.4	>0.05
Total	23	100.0	17	100.0	40	100.0		

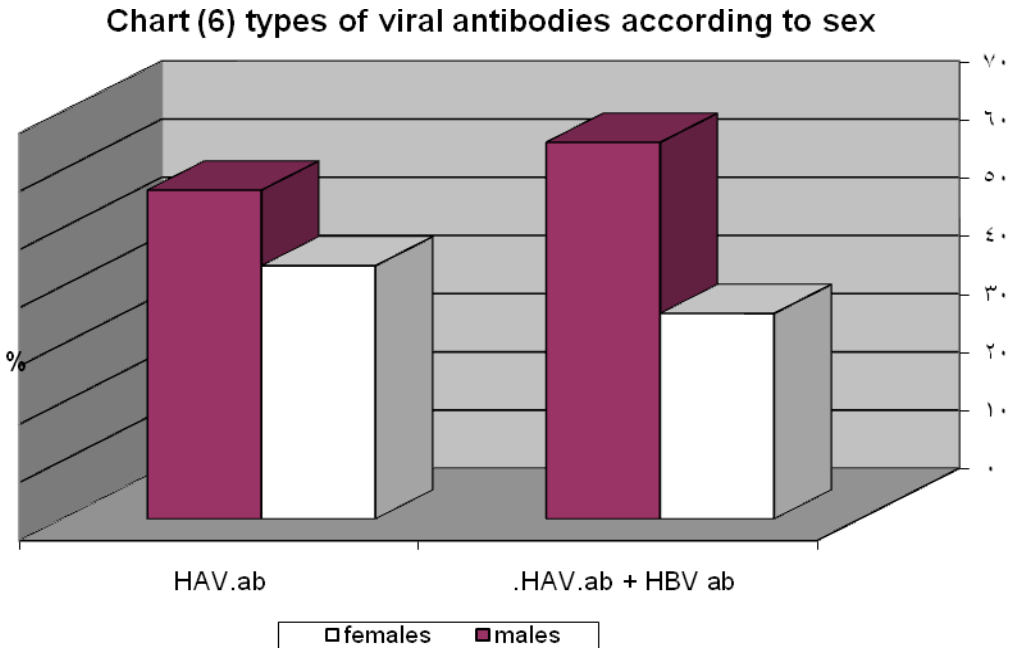


Table (20) and chart (6) show Type of viral antibodies according to sex:

According to the sex the viral markers are; males {24 cases} 13 cases of them are positive for HAV antibodies only and 11 cases are positive for HAV and HBV antibodies with no significant difference {$p > 0.05$}.

Females {16 cases} 10 cases of them are positive for HAV antibodies only and 6 cases are positive for HAV and HBV antibodies with no significant difference {$p > 0.05$}.

Table (21): Type of viral antibodies according to residence

virus Ab. / residence	HAV.Ab NO	%	HAV.Ab + HBV.Ab NO	%	Total NO	%	z	P
Rural	15	65.2	7	41.2	22	55.0	1.01	>0.05
urban	8	34.8	10	58.8	18	45.0	1.12	>0.05
Total	23	100.0	17	100.0	40	100.0		

Chart (7) types of viral antibodies according to residence

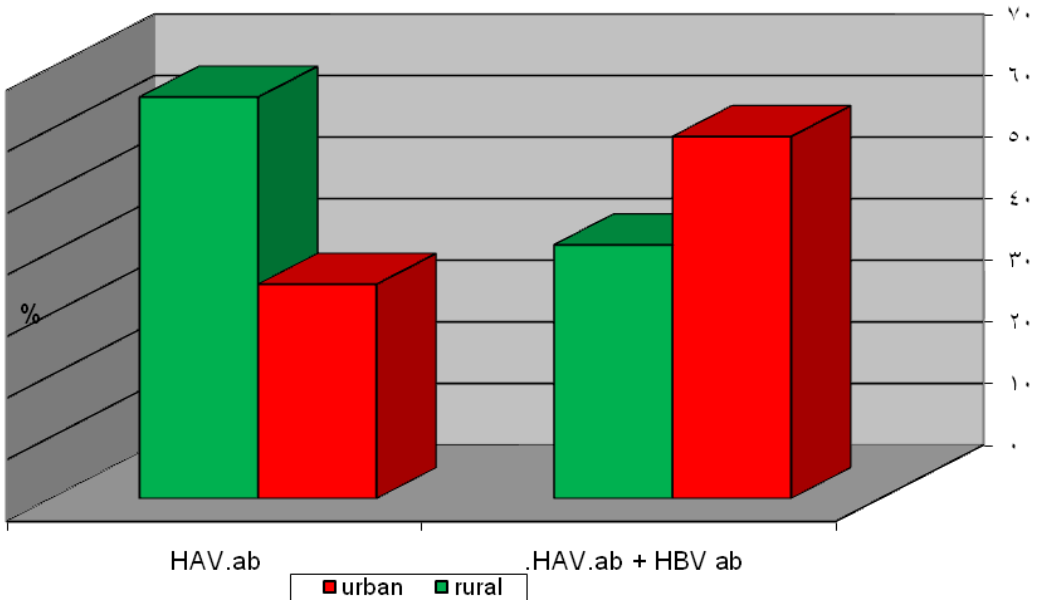


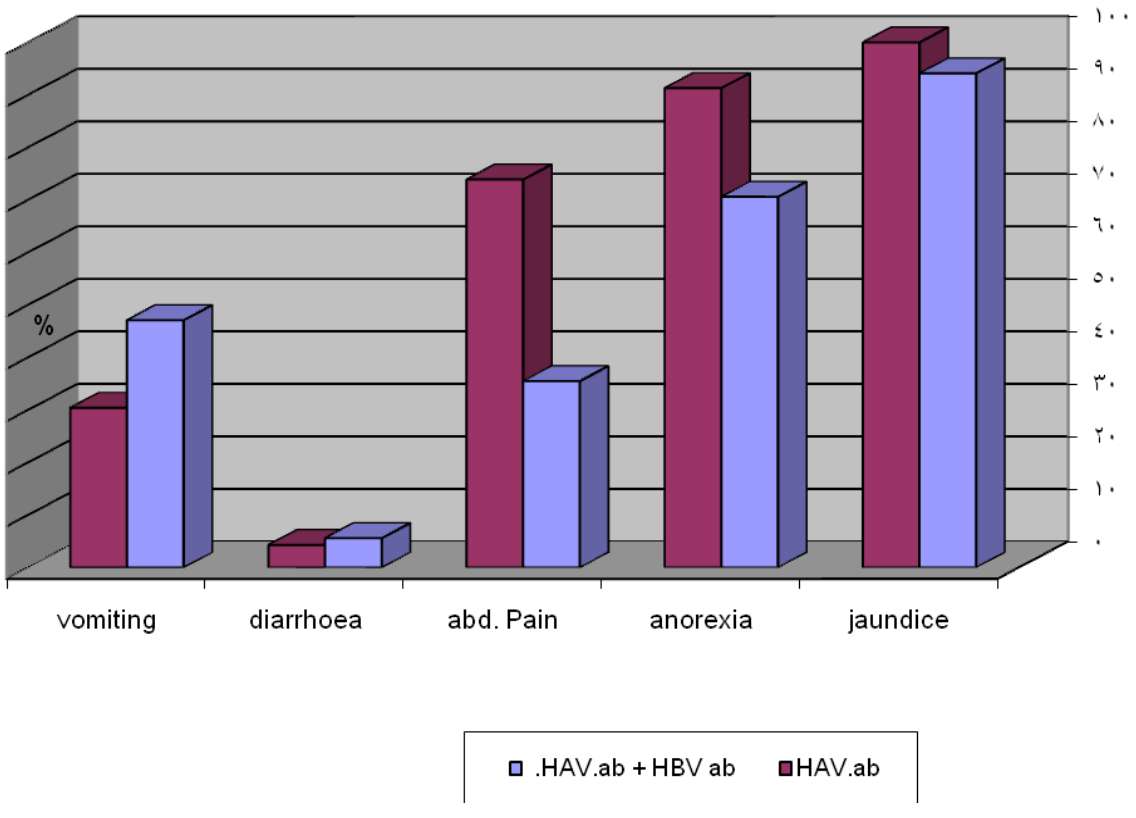
Table (21) and chart (7) show Type of viral antibodies according to residence :

According to the residence the viral markers are; rural {22cases} 15cases of them are positive for HAV antibodies only and 7 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.Urban {18 cases} 8 cases of them are positive for HAV antibodies only and 10 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

Table (22): Type of viral antibodies according to present manifestation

virus Ab. / Present manifestation	HAV.Ab n=23 NO	%	HAV.Ab + HBV.Ab n=17 NO	%	Total n=40 NO	%	z	P
1-vomiting	7	30.4	8	47.1	15	22.5	0.85	>0.05
2-diarrhea	1	4.3	1	5.9	2	5.0	0.21	>0.05
3-abd.pain	17	73.9	6	35.3	23	57.5	1.59	<0.05
4-anorexia	21	91.3	12	70.6	33	82.5	0.71	>0.05
5-jaundiace	23	100.0	1 6	94.1	39	97.5	0.19	>0.05

Chart (8) types of viral antibodies according to present manifestations



Figer(29):Present manifestation on hepatitis A positive antibodies .

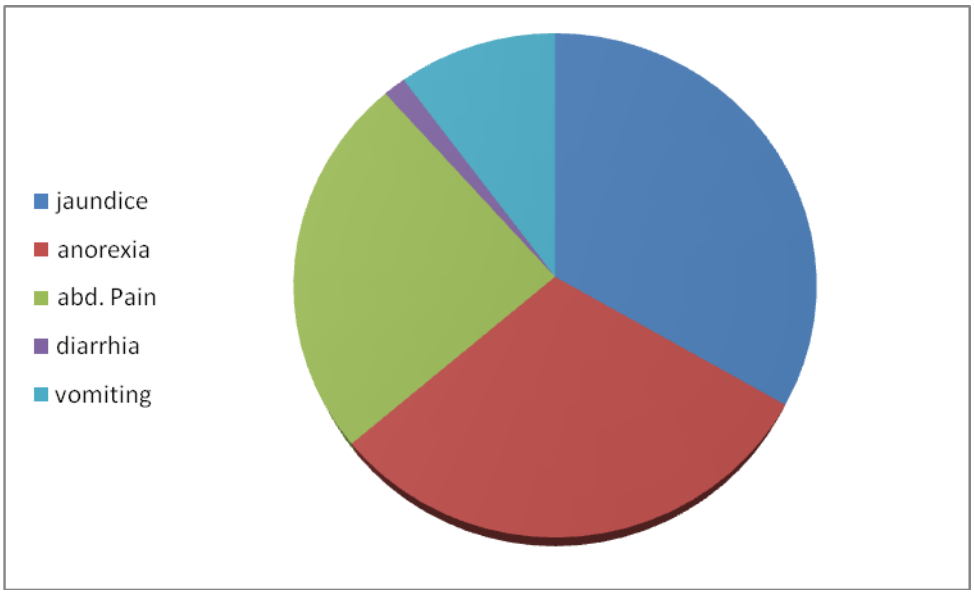


Table (22), Figer (31) and chart (8) show Type of viral antibodies according to present manifestation:

According to present manifestation with viral markers :

The children presenting with vomiting are 15 cases 7 cases are positive for HAV antibodies only and 8 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

About diarrhea { 2 cases} one case is positive for HAV antibodies only and one case is positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

About abdominal pain {23 cases }17 cases are positive for HAV antibodies only and 6 cases are positive for HAV and HBV antibodies with significant difference {p < 0.05}.

About anorexia { 33 cases} 21 cases are positive for HAV antibodies only and 12 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

About jaundice {39 cases} 23 cases are positive for HAV antibodies only and 16 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

Table (23): Type of viral antibodies according to clinical finding

virus Ab. / clinical finding	HAV.Ab n=23 NO	%	HAV.Ab + HBV.Ab n=17 NO	%	Total n=40 NO	%	z	P
1-tender abd.	22	95.6	12	70.6	34	85.0	0.85	>0.05
2-Hep. meg	21	91.3	14	82.3	35	87.5	0.3	>0.05
3-fever	19	82.6	15	88.2	34	85.0	0.19	>0.05
4- jaundice	23	100.0	17	100.0	40	100.0	---	
5-pallor	8	34.8	7	41.2	15	37.5	0.33	>0.05

Chart (9) types of viral antibodies according to clinical findings

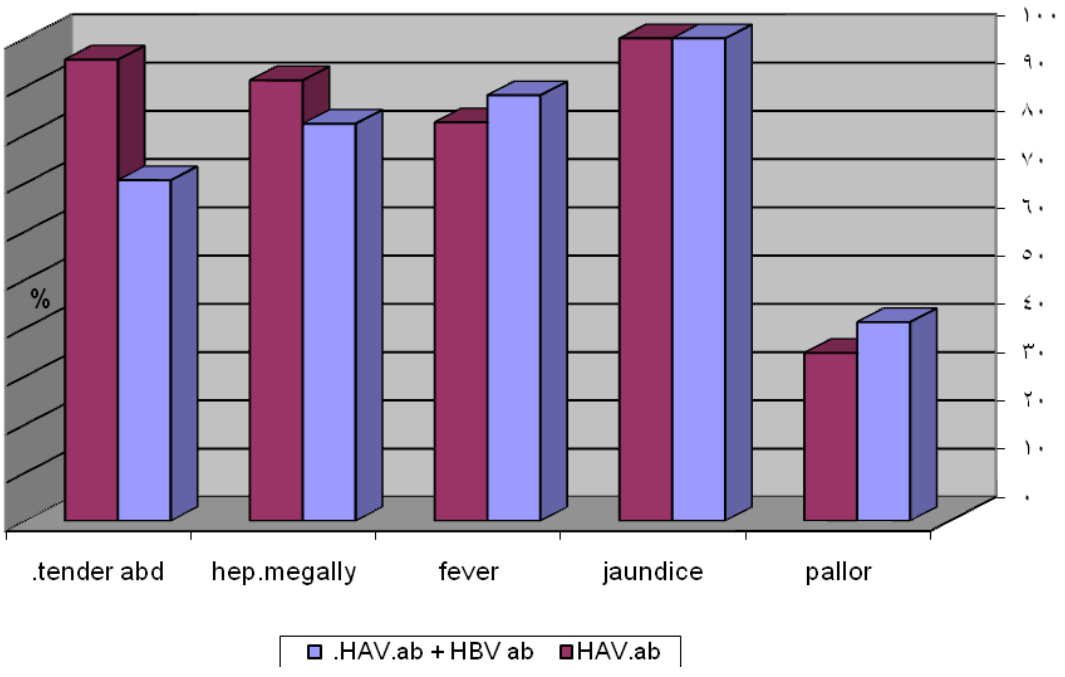


Table (23) and chart (9) show Type of viral antibodies according to clinical finding:

According to clinical finding with viral markers :

About tender abdomen are 34 cases ; 22 cases are positive for HAV antibodies only and 12 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

About hepatomegaly {35 cases} 21cases are positive for HAV antibodies only and 14 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.

About fever {34 cases } 19 cases are positive for HAV antibodies only and 15 cases are positive for HAV and HBV antibodies with significant difference {p < 0.05}.

About jaundice{ 40 cases} 23 cases are positive for HAV antibodies only {100%} and 17 cases are positive for HAV and HBV antibodies{100%}

About pallor {15 cases} 8 cases are positive for HAV antibodies only and 7 cases are positive for HAV and HBV antibodies with no significant difference {p > 0.05}.