RESULTS

This study included 90 infants and young children: 80 cases with diarrhea and 10 of normal healthy control children.

Table (4) shows sex of the studied groups from which out of 80 patients 42 (52.5%) were males and 38 (47.5%) were females. The age of all patients ranged between one day to 3 years as shown in table (5).

Table (6) shows the residence of the studied groups from which out of 80 patients 46 (57.5%) were resident in rural areas and 34 (42.5%) in urban areas.

According to the maternal education of the patients group 36 (45%) were educated and 44 (55%) were not educated as shown in table (7).

As regards to the type of feeding, 51 patients (63.8%) were breast fed and 29 (36.3%) were artificially fed as shown in table (8).

Astrovirus antigen was detected in 4 (5%) out of 80 patients and no virus antigen was detected in control group (0%) as shown in table (9); 2 (50%) out of 4 astrovirus infected patients their age were ranged from 0-6 months and the other 2 (50%) from 6-12 months as shown in table (10).

Out of 4 astrovirus infected patients one (25%) was resident in rural area and 3 (75%) in urban as shown in table (11).

According to maternal education of the astrovirus infected patients 4 (100%) were not educated as shown in table (12).

As regards to the type of feeding of the astrovirus infected patients one (25%) was breast fed and 3 (75%) were artificially fed as shown in table (13).

According to clinical findings astrovirus infected children 2 (50%) out of 4 had 3 diarrheal episodes and 2 (50%) had 4 diarrheal episodes. All cases of astrovirus infection (100%) had vomiting. The dehydration was not found in any case of astrovirus infection while fever was found in all cases as shown in table (14).

As regards to the monthly distribution of astrovirus infection out of 4 astrovirus infected cases: one (25%) in February, one (25%) in March, one (25%) in April and one (25%) in May as shown in table (15).

Table (4): Sex of the studied groups.

Group / Sex	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
Male	5	(50)	42	(52.5)
Female	5	(50)	38	(47.5)

(P> 0.05).

No statistical significant difference between the two groups.

Table (5): Age distribution of the studied groups in months.

Group / Age in months	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
0-6 M	2	(20)	13	(16.3)
6-12 M	3	(30)	35	(43.7)
12-36 M	5	(50)	32	(40)

(P> 0.05).

No statistical significant difference between the two groups.

Table (6): Residence of the studied groups.

Group / Residence	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
Rural	6	(60)	46	(57.5)
Urban	4	(40)	34	(42.5)

(P> 0.05)

No statistical significant difference between the two groups.

Table (7): Maternal education of the studied groups.

Group / Maternal education	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
Educated	5	(50)	36	(45)
Not educated	5	(50)	44	(55)

(P> 0.05)

No statistical significant difference between the two groups.

Table (8): Types of feeding of the studied groups.

Group / Types of feeding	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
Breast	6	(60)	51	(63.8)
Artificial	4	(40)	29	(36.3)

(P> 0.05)

No statistical significant difference between the two groups.

Table (9): Distribution of astrovirus infection among the studied groups.

Group / Astrovirus infection	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
+ ve	0	(0)	4	(5)
- ve	10	(100)	76	(95)

(P> 0.05)

No statistical significant difference between the two groups.

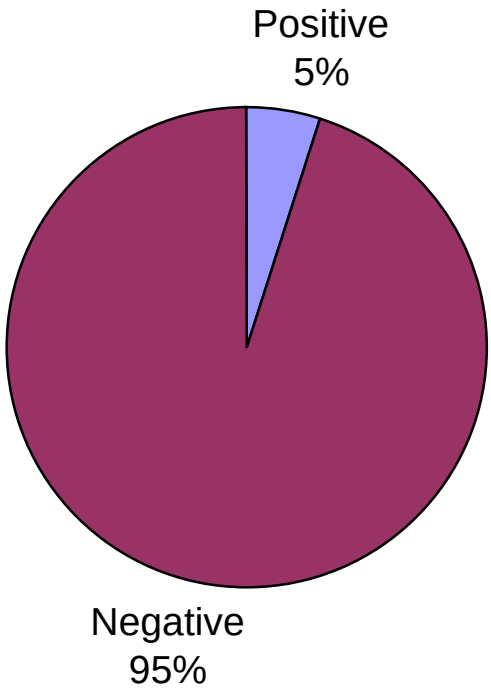

Fig (4): Incidence of astrovirus infection in the patients group.

Table (10): Age distribution in months among positive and negative astrovirus antigen patients group.

Age (month)	-ve Astrovirus		+ ve Astrovirus	
	No	(%)	No	(%)
0-6 M	11	14.5	2	50
6-12 M	33	43.4	2	50
12-36 M	32	42.1	0	0

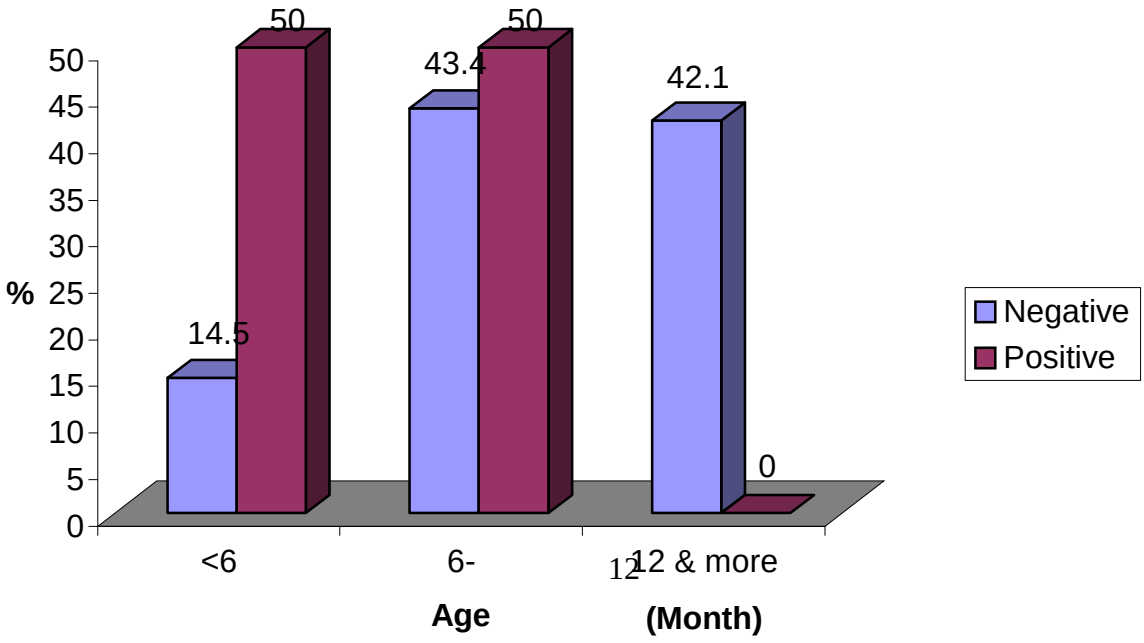

Fig (5): Age distribution (month) in astrovirus positive and negative cases.

Table (11): Residence of the positive and negative astrovirus antigen patients group.

Residence	-ve Astrovirus		+ ve Astrovirus	
	No	(%)	No	(%)
Rural	45	59.2	1	25
Urban	31	40.8	3	75

(P> 0.05)

No statistical significant difference between the positive and negative astrovirus cases as regards to the residence

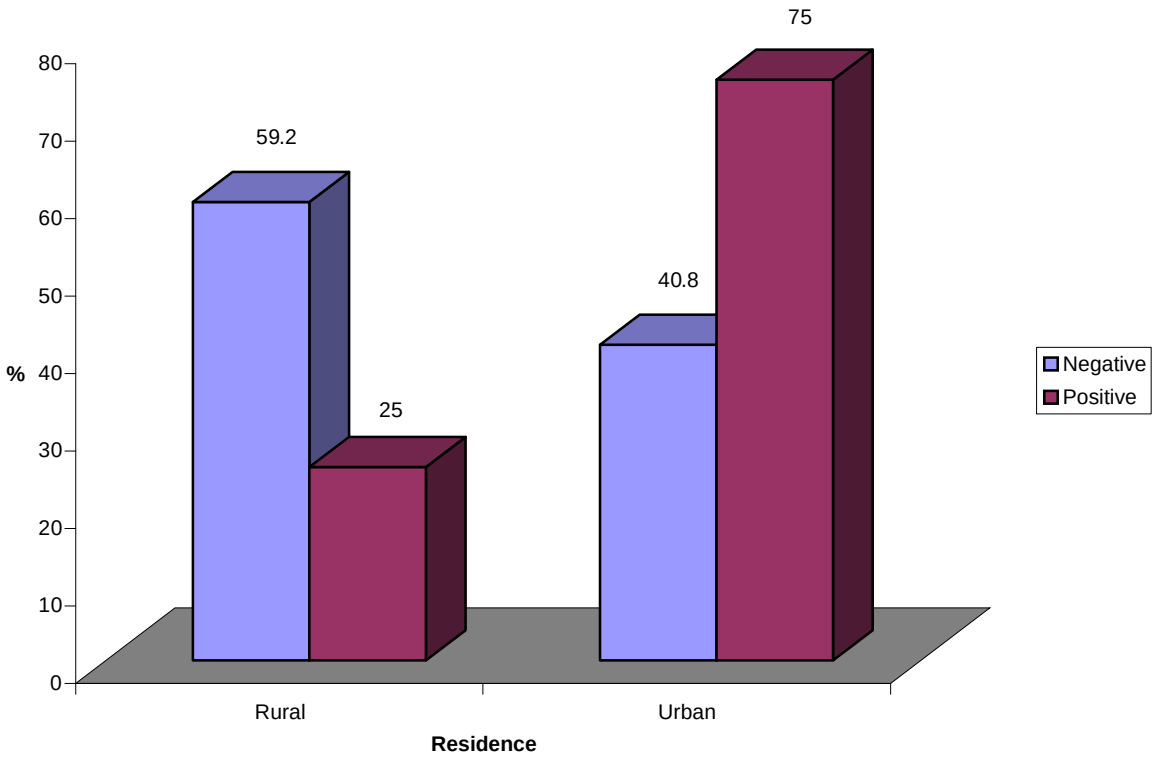

Fig (6): Residence of positive and negative astrovirus cases.

Table (12): Maternal education of positive and negative astrovirus antigen patients group.

Maternal education	-ve astrovirus		+ ve Astrovirus	
	No	(%)	No	(%)
Educated	36	47.4	0	0
Not educated	40	52.6	4	100

(P> 0.05)

No statistical significant difference between the positive and negative astrovirus infection as regards maternal education

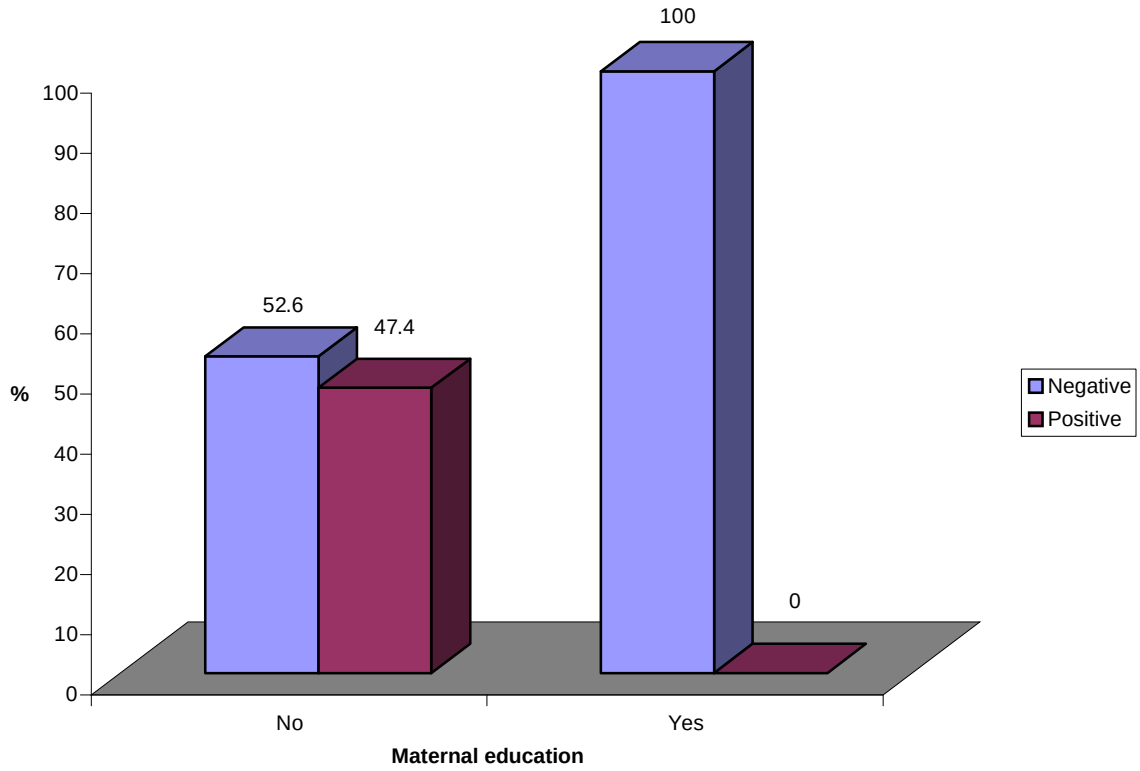

Fig (7): Maternal education of positive and negative astrovirus cases.

Table (13): Type of feeding in positive and negative astrovirus antigen patients group.

Type of feeding.	-ve astrovirus		+ ve astrovirus	
	No	(%)	No	(%)
Breast	50	65.8	1	25
Artificial	26	34.2	3	75

(P> 0.05)

No statistical significant difference between the positive and negative astrovirus infection and the type of patients feeding.

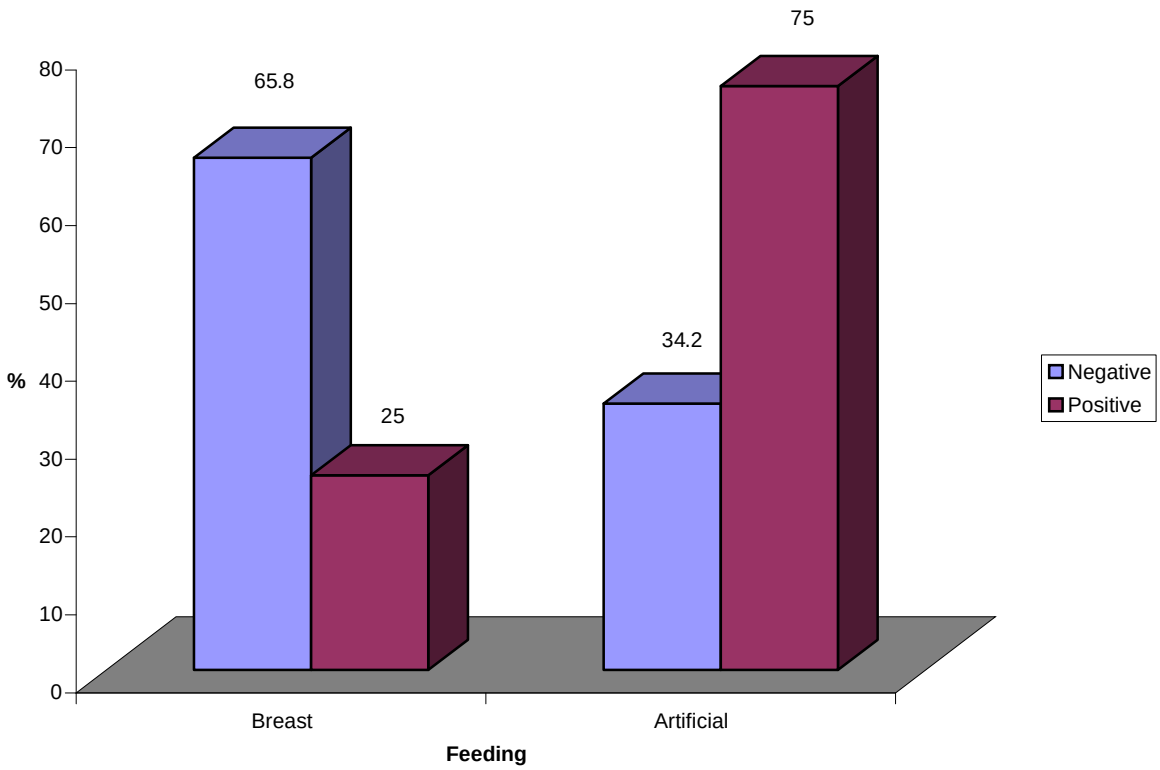

Fig (8): Type of feeding of patients in astrovirus positive and negative cases.

Table (14): Clinical findings in the positive and negative astrovirus antigen patients group.

Clinical findings	-ve astrovirus (N= 76)		+ ve astrovirus (N= 4)	
	No	(%)	No	(%)
Number of diarrheal episodes:				
3 episodes	38	50%	2	50%
4 episodes	23	30.3%	2	50%
5 episodes	15	19.7%	0	0
Vomiting:				
No	41	54%	0	0
Yes	35	46%	4	100%
Dehydration				
No	57	75%	4	100%
Yes	19	25%	0	0
Fever				
No	38	50%	0	0%
Yes	38	50%	4	100%

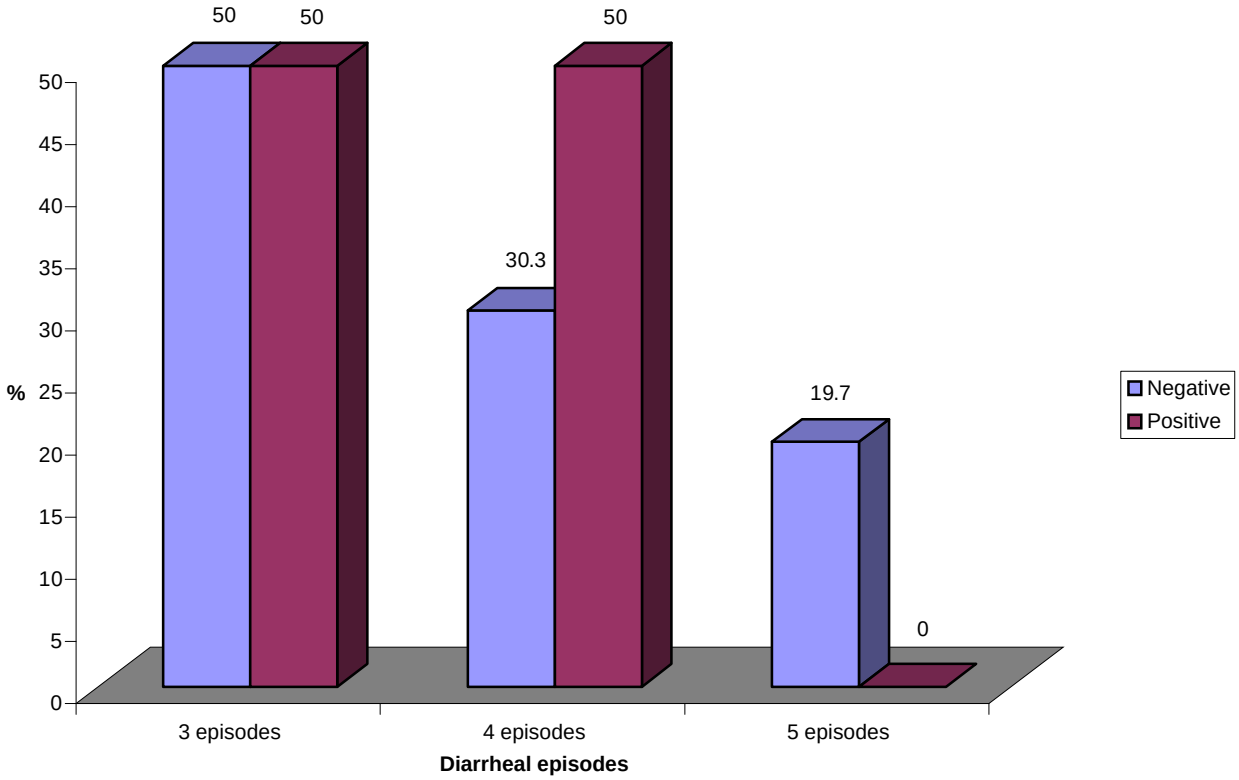

Fig (9): Number of diarrheal episodes among the patients group.

Table (15): Months of collection of samples from the studied groups.

Group / Month	Control group (N= 10)		Patients group (N= 80)	
	No	(%)	No	(%)
December	0	0	7	8.8
January	1	10	11	13.8
February	2	20	9	11.3
March	2	20	15	18.8
April	2	20	22	27.5
May	3	30	16	20

Table (16): Monthly distribution of positive and negative astrovirus antigen patients group.

Group / Month	-ve Astrovirus		+ve Astrovirus	
	No	(%)	No	(%)
December	7	9.2	0	0
January	11	14.5	0	0
February	8	10.5	1	25
March	14	18.5	1	25
April	21	27.6	1	25
May	15	19.7	1	25

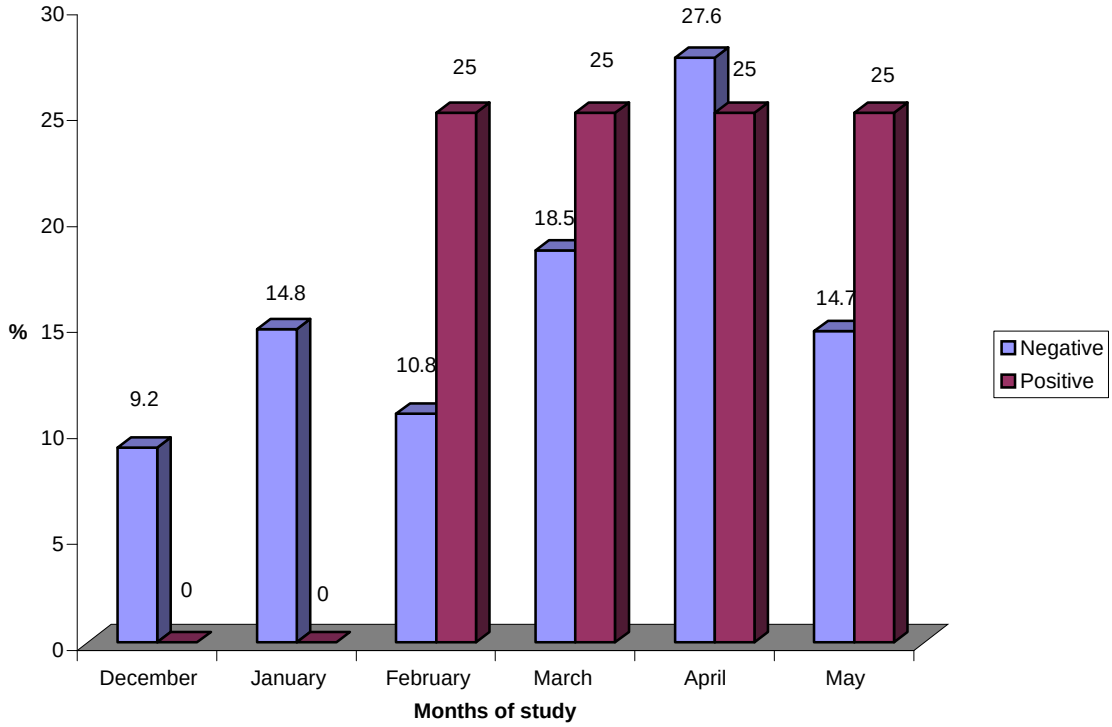

Fig (10): Monthly distribution of positive and negative astrovirus antigen patients group.