RESULTS

This study included 100 cases with chronic idiopathic constipation aged 6 - 12 years.

The descriptive data and statistical comparisons of studied cases are illustrated in tables (1 – 13) and figures (1 -10).

Table (1): Cases according to sociodemographic data.

		No.	%	z	P
Sex	Female	63	63.0	2.7	<0.05
	Male	37	37.0		
Residence	Urban	68	68.0	3.9	<0.05
	Rural	32	32.0		
Social status	High	5	5.0	() high & middle = 4.8	<0.05
	Middle	31	31.0	()high & low = 10.1	<0.001
	Low	64	64.0	()low & middle= 3.6	<0.05
Mother job	Working	34	34.0	3.4	<0.05
	Not working	66	66.0		
Father job	Farmer	15	15.0	()Farmer & Office work=3.1	<0.05
	Manual work	49	49.0	()Manual work & Office work= 1.4	>0.05
	Office work	36	36.0	()Manual work & Farmer =4.7	<0.05
Age (Years)		**Minimum**	**Maximum**	**Mean**	**Std.deviation**
		6	12	8.61	2.030

This table shows that constipation is more common among females (63%) than males (37%) and more common in children of an urban area (68%) than children of rural area (32%). In addition

constipation is more common among siblings of manual workers and also more common among children of non working women all the previous differences are statistically significant (p < 0.05). On the other hand constipation is more common in low social class than high social class with statistically highly significant difference (p < 0.001). The mean and ± SD of age of cases were 8.61 and 2.030 respectively.
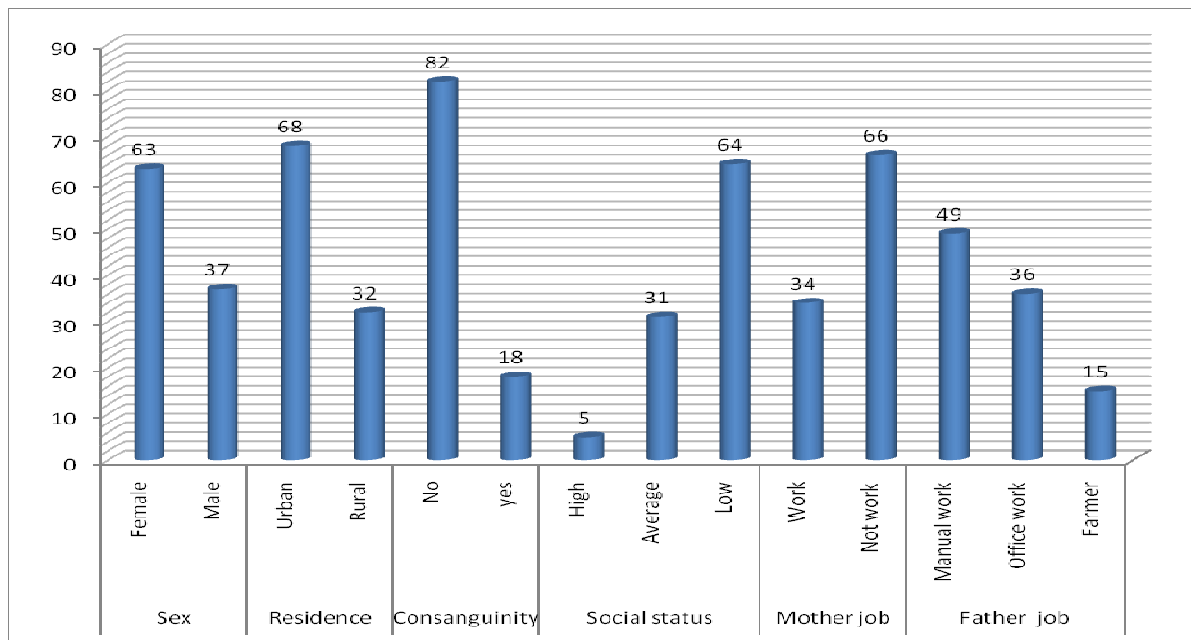

Fig (1): Cases according to sociodemographic data.

Table (2): Cases according to consanguinity.

		No.	%	z	P
Consanguinity	- ve	82	82.0	8.3	<0.001
	+ ve	18	18.0		

This table shows that (18%) of constipated children had positive consanguinity and (82%) had negative consanguinity with statistically highly significant difference(p<0.001).
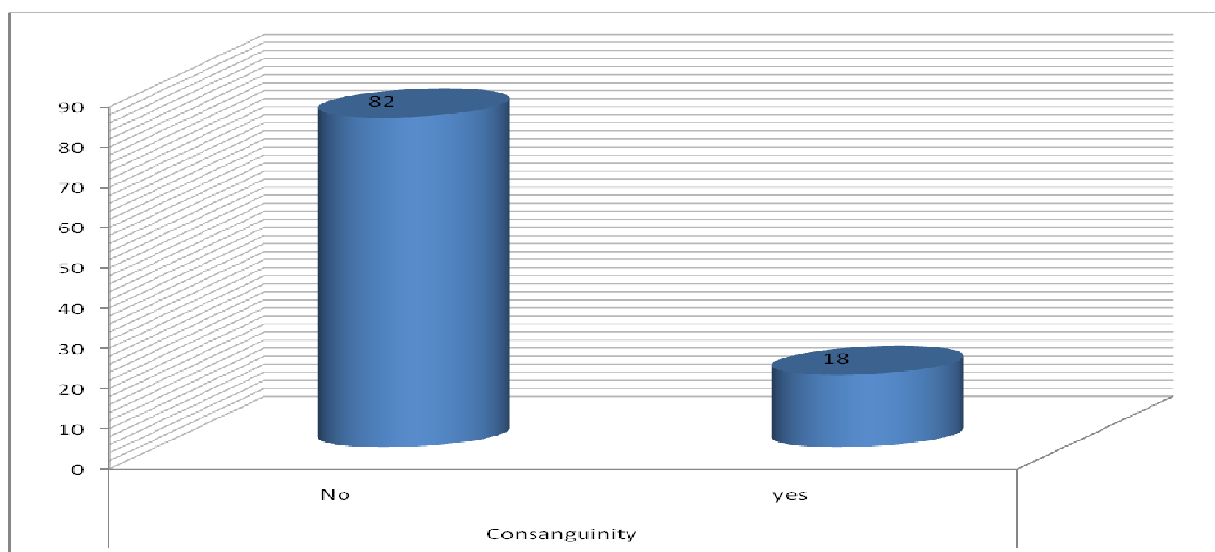

Fig (2): Cases according to consanguinity.

Table (3): Cases according to dietetic history.

		No.	%	z	P
Tea	No	48	48.0	0.4	>0.05
	Yes	52	52.0		
Juice	No	73	73.0	5.2	<0.05
	Yes	27	27.0		
Milk intake	No	87	87.0	11.002	<0.001
	yes	13	13.0		
Carbohydrates	Potato	47	47.0	()Potato & Rice =1.1	>0.05
	Rice	37	37.0	()Potato & NO = 4.2	<0.05
	No	16	16.0	()No & Rice = 3.01	<0.05
Fruits	No	70	70.0	4.4	<0.05
	Yes	30	30.0		
Vegetables	No	68	68.0	3.9	<0.05
	Yes	32	32.0		
Protein (meat)	No	85	85.0	9.8	<0.001
	Yes	15	15.0		

This table shows that excess potato intake is more frequently found among constipated children as it represents the favourite food in nearly (47%). In addition constipated children who do not drink excess juice about (73%).Moreover constipated children who do not eat excess fruits and vegetables (70% & 68% respectively) all the previous differences are statistically significant (p<0.05).As regards constipated children who do not take regular milk (87%) and constipated children who eat excess protein (15%) the previous two differences are statistically highly significant (p<0.001).On the other hand, constipated children who drink excess tea (52%) with statistically no significant difference exists between them.

Table (4): Cases according to type of bread intake.

		No.	%	z	P
Type of bread	Black	29	29.0	4.6	<0.05
	Other	71	71.0		

This table shows that (29%) of constipated children consumed black bread and (71%) consumed other types of bread with statistically significant difference (p<0.05).
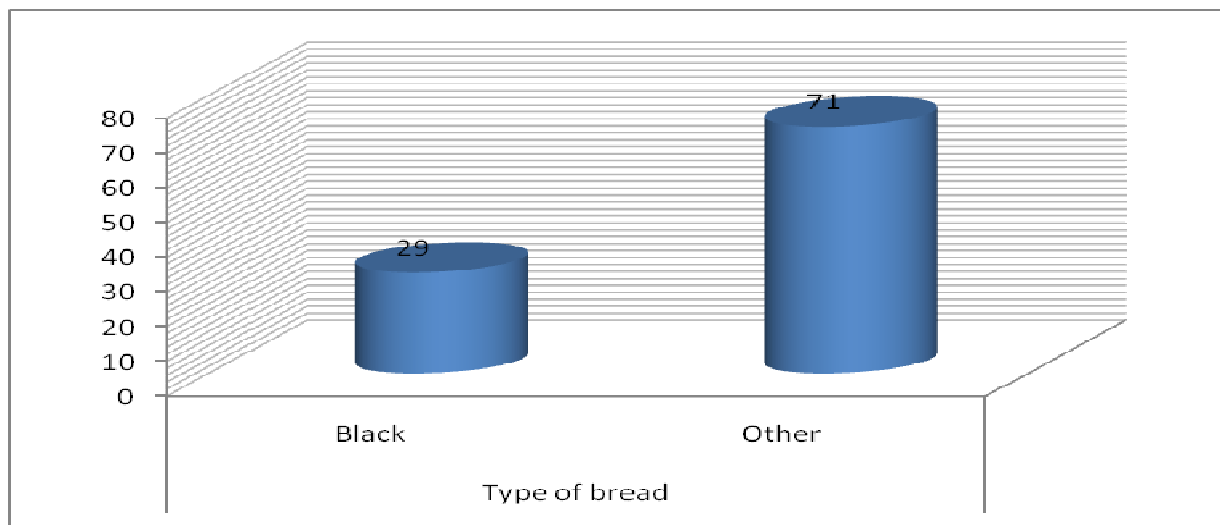

Fig (3): Cases according to type of bread intake.

Table (5): Cases according to drug intake.

		No.	%	z	P
Drug intake	Iron	16	16.0	()Iron & Ant acid =1.9	<0.05
	Antacid	7	7.0	()Iron & no = 8.2	<0.001
	No	77	77.0	()no & Ant acid = 11.8	<0.001

This table shows that (16%) of constipated children had history of prolonged intake of iron containing medications with statistically significant difference(p<0.05) and (7%) had history of antacids intake with statistically highly significant difference(p<0.001). In addition (77%) do not take any drugs with statistically highly significant difference(p<0.001).
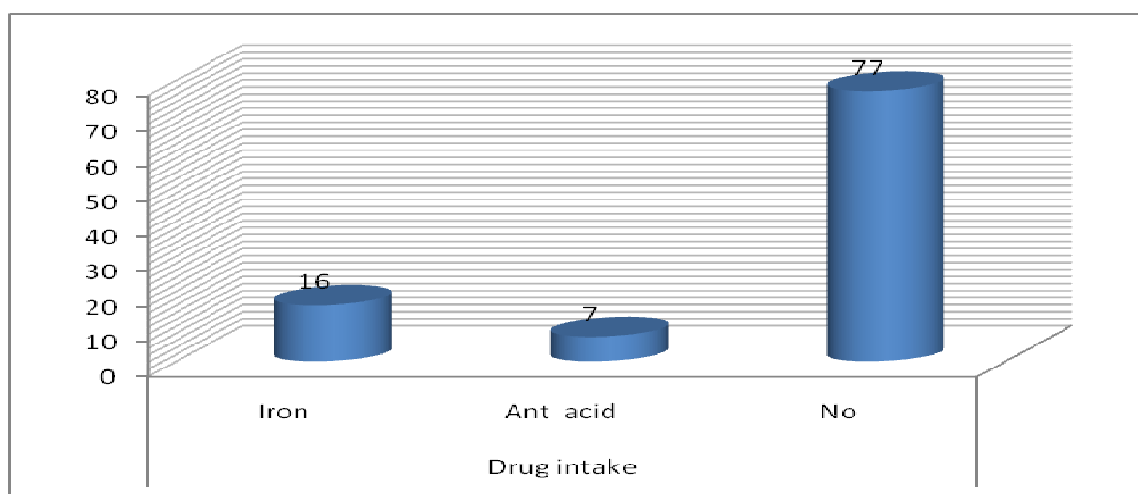

Fig (4): Cases according to drug intake.

Table (6): Cases according to exercise practice.

		No.	%	z	P
Exercise	No	88	88.0	11.7	<0.001
	Yes	12	12.0		

This table shows that (88%) of constipated children do not perform any kind of exercise while (12%) were practicing exercise with statistically highly significant difference (p < 0.001).
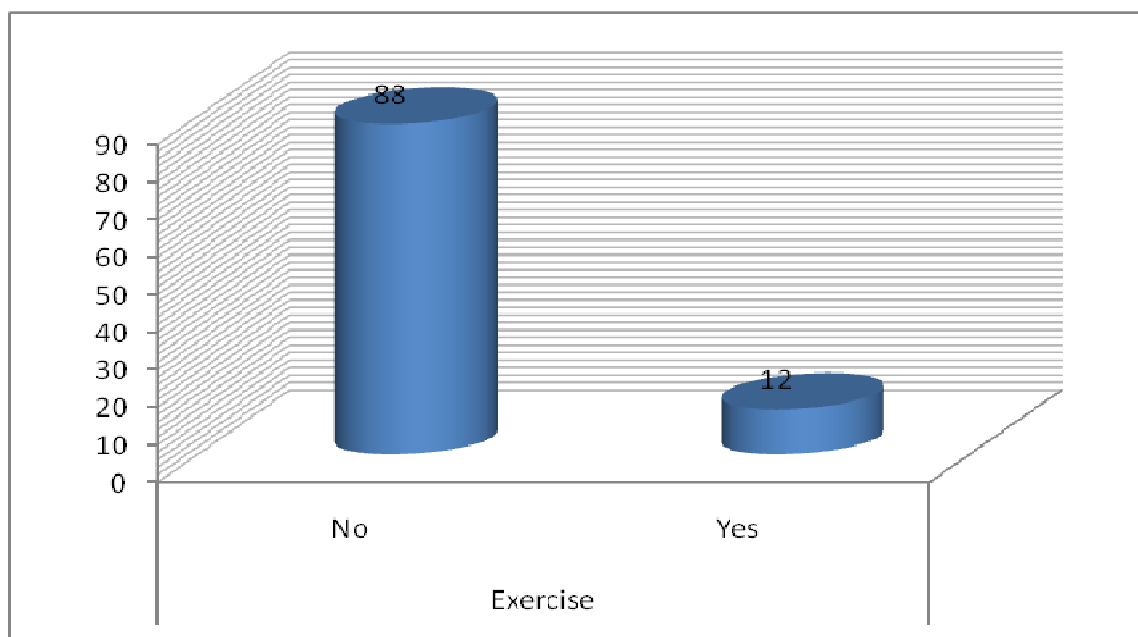

Fig (5): Cases according to exercise practice.

Table (7): Cases according to exposure to stressful events.

		No.	%	z	P
Stressful events	No	55	55.0	1.01	>0.05
	Yes	45	45.0		

This table shows that (45%) of constipated children exposed to stressful life events and (55%) don't exposed to stressful life events with statistically no significant difference exists between them(p>0.05).
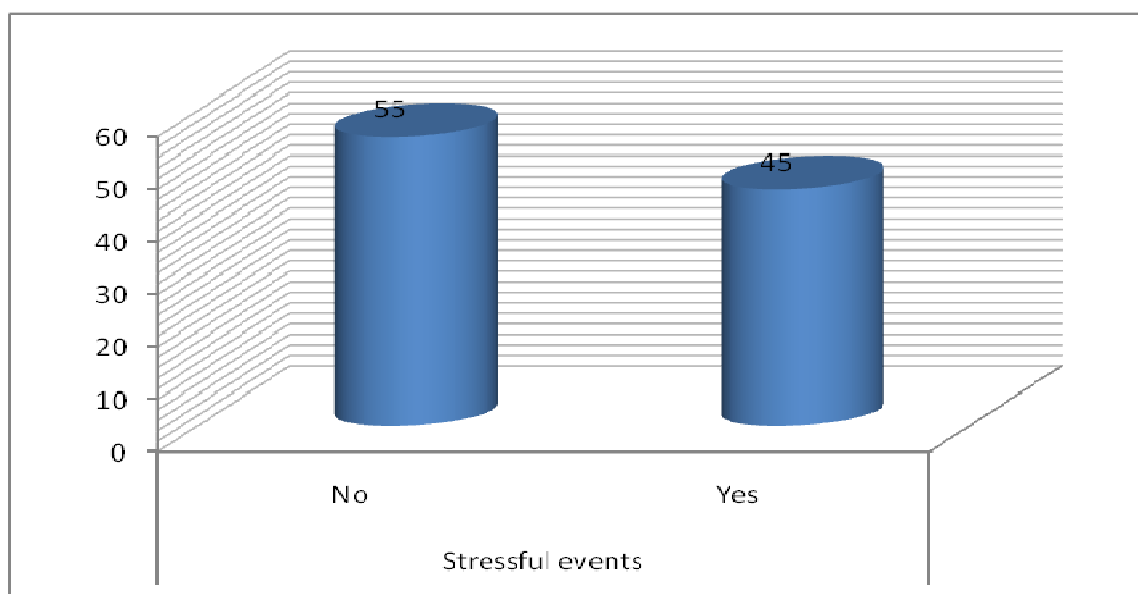

Fig (6): Cases according to exposure to stressful events.

Table (8): Cases according to their complains.

		No.	%	Z	P
Straining at defecation	No	31	31.0	4.1	<0.05
	Yes	69	69.0		
Pain with defecation	No	58	58.0	1.6	>0.05
	Yes	42	42.0		
Abdominal Pain	No	33	33.0	3.6	<0.05
	yes	67	67.0		
Abdominal distention	No	94	94.0	18.5	<0.001
	Yes	6	6.0		
Dyspepsia	No	69	69.0	4.1	<0.05
	Yes	31	31.0		
Anorexia	No	86	86.0	10.4	<0.001
	yes	14	14.0		
Consistency of stool	Hard / firm	81	81.0	7.9	<0.001
	Normal	19	19.0		
Soiling	No	79	79.0	7.1	<0.001
	Yes	21	21.0		

This table shows that different complains of constipated children as regarding straining at defecation, abdominal pain and dyspepsia were (69% & 67% & 31 % respectively)all previous differences are statistically significant (p<0.05). In addition abdominal distention, anorexia, consistency

of stool (hard / firm) and soiling were (6% & 14% & 81%& 21% respectively) these previous differences are statistically highly significant (p<0.001). As regard constipated children who had pain with defecation were (42%) with statistically no significant difference exists between them (p>0.05).
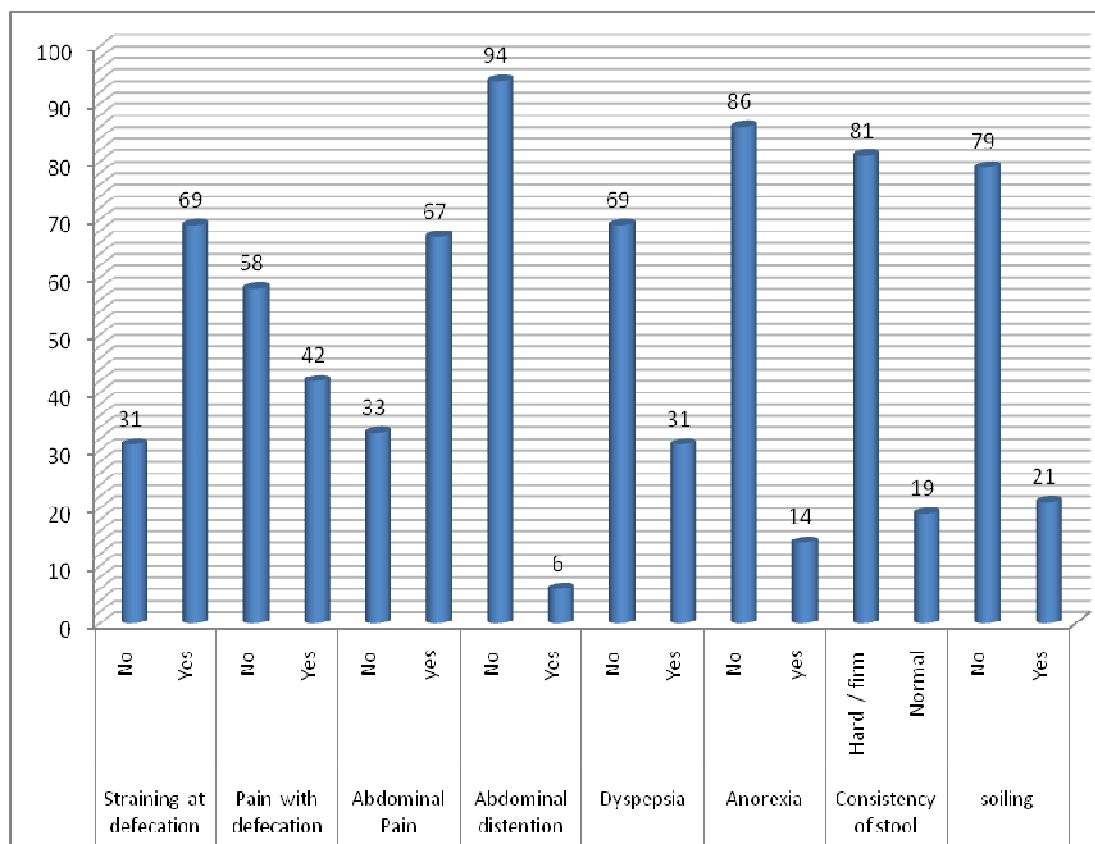

Fig (7): Cases according to their complains.

Table (9): Cases according to growth status

		No.	%	z	P
Weight	Normal	87	87.0	11.002	<0.001
	Under weight	13	13.0		
Stature	Normal	98	98.0	34.3	<0.001
	Short stature	2	2.0		
BMI	**Mean**		**SD**		
6y	15.2		2.7		
7y	15.3		2.3		
8y	15.5		3.2		
9y	16.4		4.4		
10y	17.6		3.1		
11y	16.7		3.04		
12y	19.2		9.1		
BMI	**Mean**		**SD**		
Male	17.2		3.9		
Female	16.7		3.9		

This table shows that chronic constipation may affect the growth status of children in the form of under weight**,** short stature (13% & 2% respectively) with statistically highly significant difference(p< 0.001). Inaddition table shows Mean and SD of BMI of constipated cases according to age**,** as there are slightly gradual increase of BMI of constipated cases from 6 to 12 years also Mean of BMI of constipated cases according to sex is 17.2 for male and 16.7 for female.

Table (10): Cases according to family history of chronic constipation.

		No.	%	z	P
Family History	- ve	76	76.0	6.1	<0.001
	+ ve	24	24.0		

This table shows that (24%) of constipated children had positive family history of constipation and (76%) had negative family history of constipation with statistically highly significant difference(p<0.001).
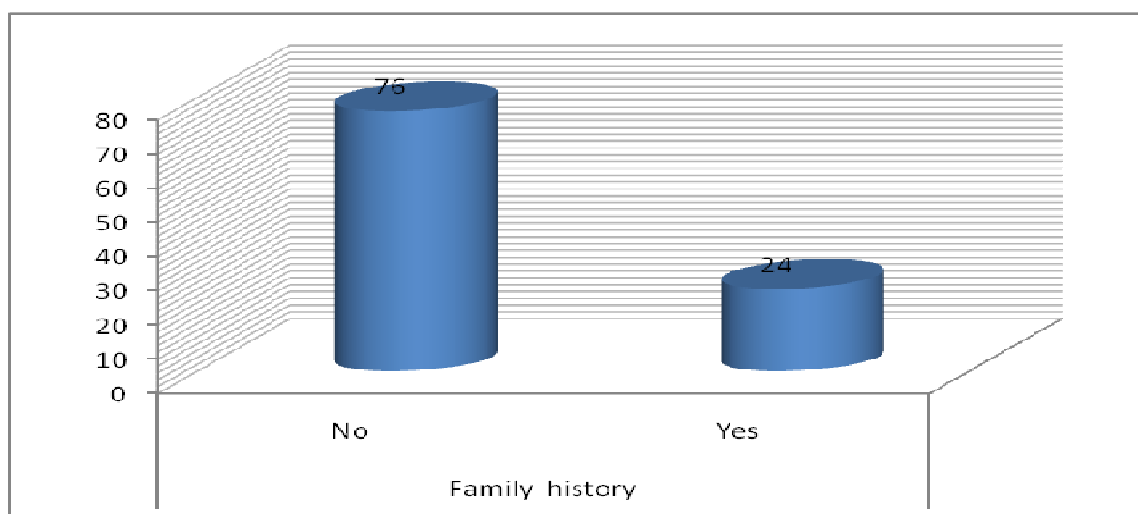

Fig (8): Cases according to family history of chronic constipation.

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Table (11): Cases according to past events.

		No.	%	Z	P
Abdominal surgery	No	98	98.0	34.3	<0.001
	Yes	2	2.0		
Peri anal lesions	No	93	93.0	16.9	<0.001
	Yes	7	7.0		
Allergy	No	74	74.0	5.5	<0.05
	yes	26	26.0		

This table shows that (2%) of constipated children had past events of abdominal surgery with statistically highly significant difference (p<0.001).In addition (7%) had past events of peri anal lesions with statistically highly significant difference (p<0.001). Moreover allergy was more frequently found in (26%) with statistically significant difference (p < 0.05).

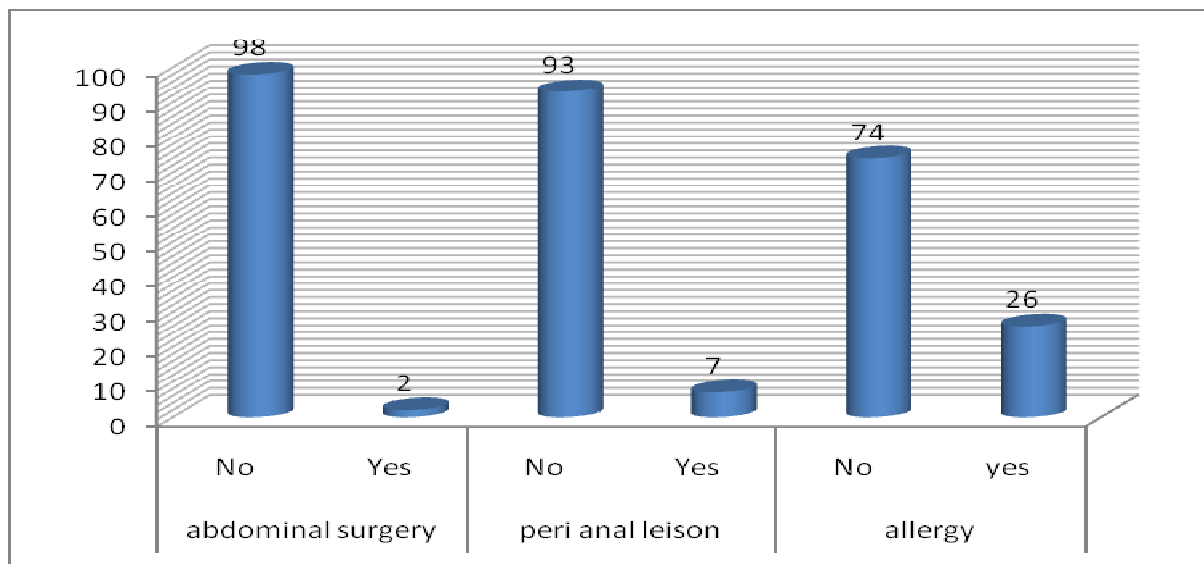**Fig (9):** Cases according to past events.
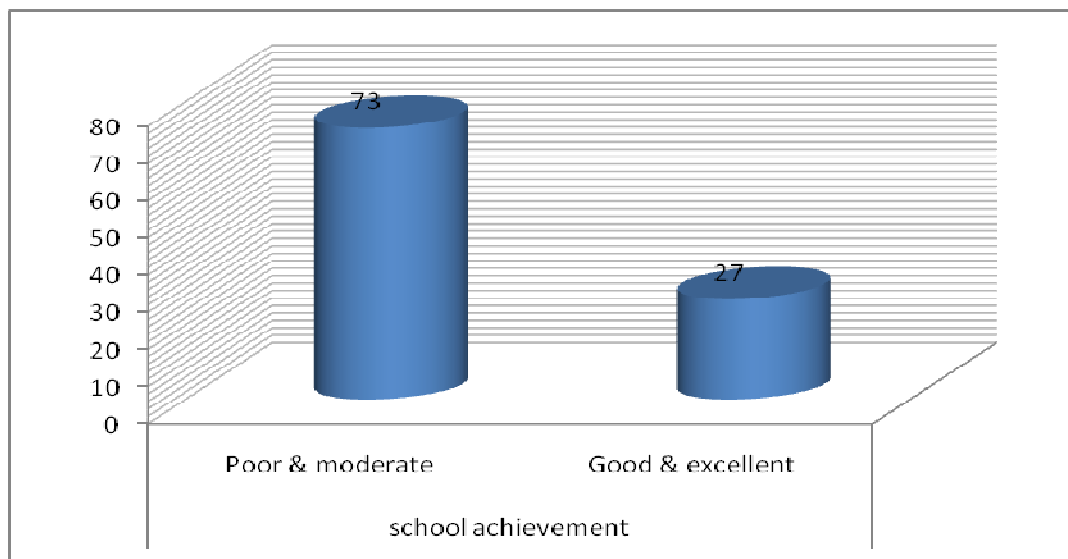
Table (12): Cases according to their complications.

		No.	%	z	P
Anemia	No	47	47.0	0.6	>0.05
	Yes	53	53.0		
Occult blood in stool	No	73	73.0	5.2	<0.05
	Yes	27	27.0		
Anal fissure	No	84	84.0	9.3	<0.001
	Yes	16	16.0		
Piles	No	99	99.0	49.2	<0.05
	Yes	1	1.0		
Perianal erythema	No	23	23.0	6.4	<0.05
	Yes	77	77.0		

This table shows that constipated children who had complications from constipation in the form of anal fissure (16 %) with statistically highly significant difference (p < 0.001). In addition occult blood in stool, piles and perianal erythema were (27% & 1% & 77 % respectively) these previous differences are statistically significant (p<0.05).As regard constipated children who had anemia (53%) with statistically no significant difference exists between them (p>0.05).

Table (13): Cases according to school achievement.

		No.	%	z	P
School achievement	Poor & moderate	73	73.0	5.2	<0.05
	Good & excellent	27	27.0		

This table shows that (73%) of constipated children had poor & moderate scholastic performance and (27%) had good & excellent scholastic performance with statistically significant difference (p<0.05).

Fig (10): Cases according to school achievement.