RESULTS

This study was done on fifty patients with chronic urticaria (32females & 18males), their ages ranged from 9 years to 63 years with mean age (35.68 ± 15.04years) (table.4), and twenty control persons who are blood donors their ages ranged from 17-45 years with mean age (29.6±8.91years) (table.5). The patients reported persistance of the disease from 3 months to 5 years (table.4).

All the patients with chronic urticaria and the control groups were Subjected to nasal and throat swabs. The swabs were cultured on MSA and incubated at 37°C for 48hr. Production of golden yellow colonies suggesting staphylococcus aureus.Gram stain was done and biochemical reactions as coagulase test, Dnase test to confirm the presence of pathogenic strain of staphylococci (S.aureus).

From this study we found that the frequency of staphylococcal carrier in nose (52%) (table.8) and in throat (56%) among chronic urticaria patients (table.9). which is more prevelant than in healthy control persons, where the frequency of staphylococcal carrier in nose (30%) (table.8) and also (30%) in throat (table.9).

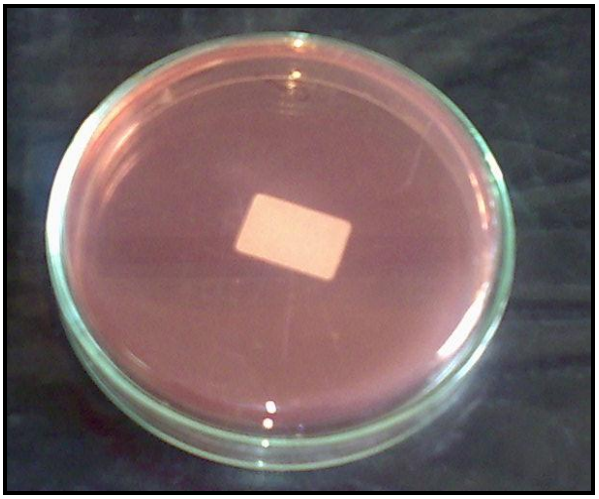


Figure (4): Non cultured plate of Mannitol salt agar medium (MSA).

Figure(5): Positive culture of nasal and throat swab specimens on (MSA) medium of case no. (50) .

STATISTICAL ANALYSIS

The clinical and laboratory data were recorded on an "Investigation report form". These data were tabulated, coded then analyzed using the computer program SPSS (Statistical package for social science) version 16 to obtain.

Descriptive data:

Descriptive statistics were calculated for the anthropometric measurements and laboratory data in the form of:

1- Mean.
2- Standard deviation (±SD).

Analytical statistics:

In the statistical comparison between the different groups, the significance of difference was tested using one of the following tests:-

1- Student's *t*-test:-Used to compare between mean of two groups of numerical (parametric) data.

2- Inter-group comparison of categorical data was performed by using z test of proportion.

A *P* value <0.05 was considered statistically significant, a *P* value <0.0001 was considered highly significant, and a P. value >0.05 was considered non significant in all analyses.

Table(4): Master sheet of nasal and throat carriage of staphylococci in chronic urticaria patients.

Patient number	Sex	Age	Duration (month)	Nasal swab	Throat swab
1	F	48	60	+ve	+ve
2	M	25	24	-ve	-ve
3	M	42	20	-ve	-ve
4	F	40	20	+ve	+ve
5	F	33	8	+ve	+ve
6	M	63	44	-ve	+ve
7	F	20	13	-ve	-ve
8	M	9	16	+ve	+ve
9	F	18	9	-ve	-ve
10	F	42	36	-ve	+ve
11	F	38	12	-ve	-ve
12	F	35	16	+ve	+ve
13	M	54	60	+ve	+ve
14	F	44	25	-ve	-ve
15	M	21	4	-ve	-ve
16	F	29	7	+ve	+ve
17	F	36	12	+ve	+ve
18	M	25	16	-ve	-ve
19	F	31	22	+ve	-ve
20	F	15	6	+ve	+ve
21	M	40	15	+ve	+ve
22	M	47	30	-ve	-ve
23	F	37	18	-ve	-ve
24	F	47	30	+ve	+ve
25	F	16	6	+ve	+ve

Patient number	Sex	Age	Duration (month)	Nasal swab	Throat swab
26	M	12	4	+ve	-ve
27	F	35	12	-ve	+ve
28	M	29	14	+ve	+ve
29	F	49	30	+ve	-ve
30	F	17	10	-ve	+ve
31	M	57	16	-ve	-ve
32	F	50	36	+ve	+ve
33	F	21	6	+ve	+ve
34	F	42	36	-ve	-ve
35	F	19	8	+ve	+ve
36	M	53	20	-ve	-ve
37	M	55	36	+ve	+ve
38	F	62	27	-ve	-ve
39	M	27	8	-ve	+ve
40	F	46	48	+ve	+ve
41	F	52	60	+ve	+ve
42	M	63	18	-ve	-ve
43	F	19	3	-ve	-ve
44	F	16	5	+ve	+ve
45	F	38	12	+ve	+ve
46	M	23	16	-ve	-ve
47	M	15	10	-ve	-ve
48	F	32	18	+ve	+ve
49	F	61	48	-ve	-ve
50	F	36	10	+ve	+ve

Table(5): Master sheet of nasal and throat carriage in control persons.

Control persons	Sex	Age	Nasal swab	Throat swab
1	M	30	-ve	-ve
2	M	22	+ve	+ve
3	F	26	-ve	-ve
4	M	40	-ve	+ve
5	F	18	+ve	-ve
6	F	21	-ve	-ve
7	M	36	-ve	-ve
8	M	18	+ve	-ve
9	M	25	-ve	+ve
10	F	27	-ve	-ve
11	M	39	-ve	-ve
12	M	37	-ve	-ve
13	M	23	+ve	+ve
14	F	33	-ve	-ve
15	F	40	+ve	-ve
16	M	45	-ve	+ve
17	M	37	-ve	-ve
18	M	20	+ve	-ve
19	M	38	-ve	+ve
20	F	17	-ve	-ve

Table(6): Comparison between patients group as regarding sex.

	Cases		z	P
	No.	%		
Male	18	36	2.1	<0.05
Female	32	64		
Total	50	100		

This table shows that there is statistically significant increased incidence of chronic urticaria among females.

Table(7): Comparison between patients & control groups as regarding age.

	Group	Number	Age	T	P
Age	cases	50	9-63 years (35.68±15.04)	2.1	<0.05
	control	20	17-45 years (29.6±8.91)		

This table shows that there is statistically significant increase of chronic urticaria with age.

Table(8): Comparison between patients & control groups as regarding nasal swabs.

	Cases		Control		Total	Z	P
	No.	%	No.	%			
Positive	26	52	6	30	32	4.2	<0.05
Negative	24	48	14	70	38	2.1	<0.05
Total	50	100	20	100	70		

This table shows that there is statistically significant increased incidence of nasal staphylococci in patients group.

Table(9): Comparison between patients & control groups as regarding throat swabs.

	Cases		control		Total	z	P
	No.	%	No.	%			
Positive	28	56	6	30	34	1.9	<0.05
Negative	22	44	14	70	36	1.9	<0.05
Total	50	100	20	100	70		

This table shows that there is statistically significant increased incidence of throat staphylococci in patients group.

Table(10): Comparison between positive & negative nasal swabs in patients group as regarding sex.

	Positive		**Negative**		**Total**	**z**	**P**
	No.	**%**	**No.**	**%**			
Female	٢٠	٧٦.٩	١٢	٥٠	٣٢	1.9	<0.05
Male	٦	٢٣.١	١٢	٥٠	١٨	1.9	<0.05
Total	٢٦	١٠٠	٢٤	١٠٠	٥٠		

This table shows that there is statistically significant increased incidence of nasal staphylococci in female patients.

Table(11): Comparison between positive & negative throat swabs in patients group as regarding sex

	Positive		**Negative**		**Total**	**z**	**P**
	No.	**%**	**No.**	**%**			
female	٢١	٧٥.٠	١١	٥٠.٠	٣٢	1.8	<0.05
Male	٧	٢٥.٠	١١	٥٠.٠	١٨	1.8	<0.05
Total	٢٨	١٠٠.٠	٢٢	١٠٠.٠	٥٠		

This table shows that there is statistically significant increased incidence of throat staphylococci in females.

Table(12): Comparison between positive & negative throat swabs in patients group as regarding duration of disease.

	TS	N	Duration	P
Duration	+ve	28	(5-60 mon.) 31.39 ± 36.31	>0.05
	-ve	22	(3-48 mon.) 42.18 ± 57.05	

This table shows that there is statistically no significant relation between throat staphylococci and duration of chronic urticaria.

Table(13): Comparison between positive & negative nasal swabs in patients group as regards duration of disease.

	NS	N	Duration	P
duration	+ve	26	(5-60 mon.) 27.88 ± 29.70	>0.05
	-ve	24	(3-48 mon.) 45.08 ± 58.84	

This table shows that there is statistically no significant relation between nasal staphylococci and duration of chronic urticaria .

Table(14): Comparison between positive & negative throat swab as regarding age of patients.

	NS	N	Age	P
Patients group	+ve	٢٨	(9-63years) ٣٥ ±14.04	>0.05
	-ve	٢٢	(12-63years) ٣٦.٥٤ ±16.52	

This table shows that there is statistically no significant relation between positive & negative throat swabs and age of patients.

Table(15): Comparison between positive & negative nasal swabs as regarding age of patients.

	NS	N	Age	P
Patients group	+ve	٢٦	(9-55years) (٣٤.١٥ ± ١٣.٨٩)	>0.05
	-ve	٢٤	18-63years (٣٧.٣٣ ± ١٦.٣٢)	

This table shows that there is statistically no significant relation between positive & negative nasal swabs and age of patients.

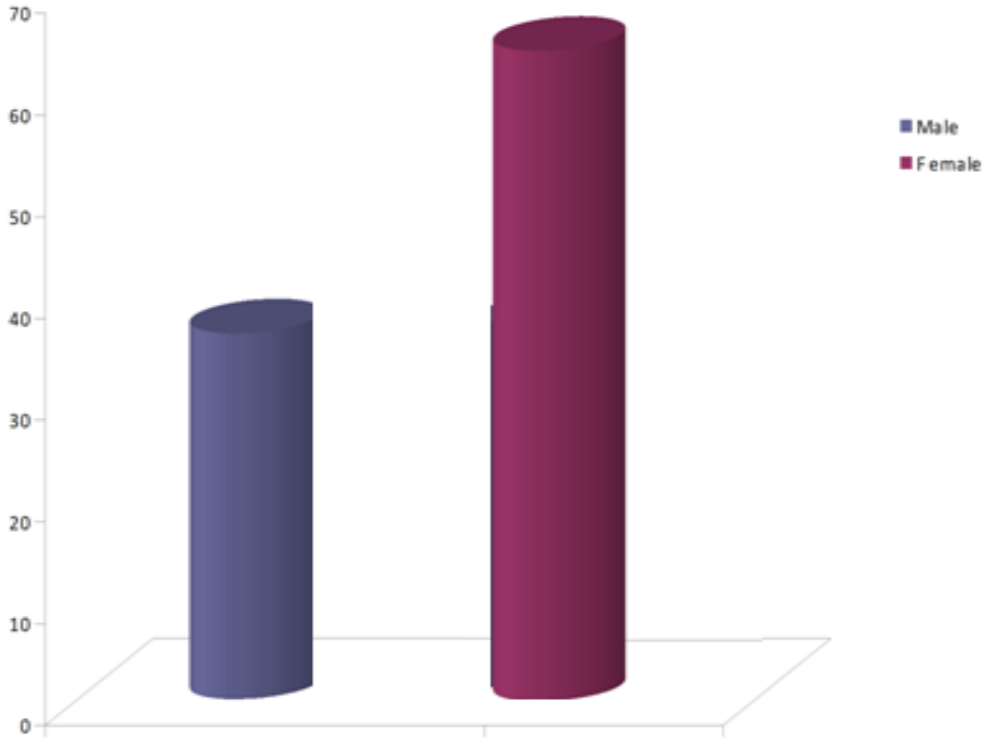


Fig (6): Comparison between patients group as regarding sex.

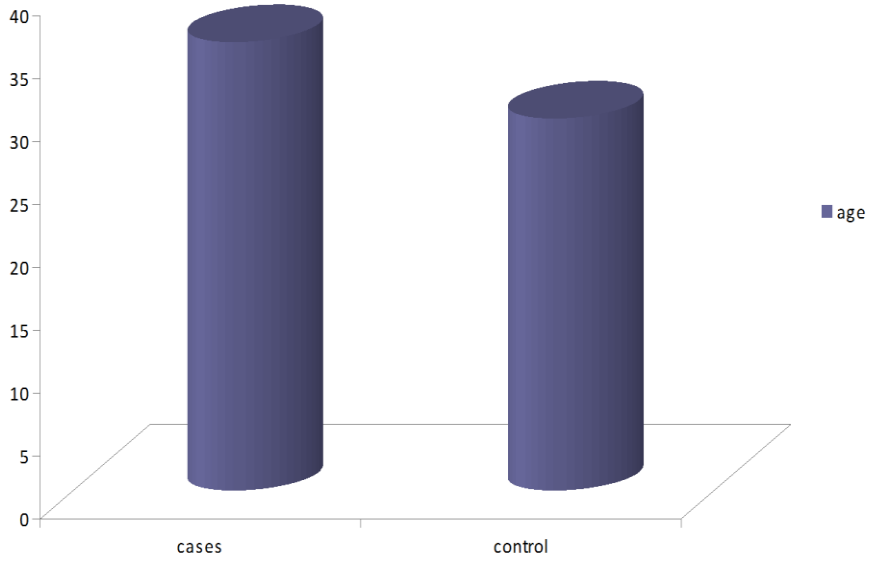


Fig (7) : Comparison between patients & control groups as regarding age.

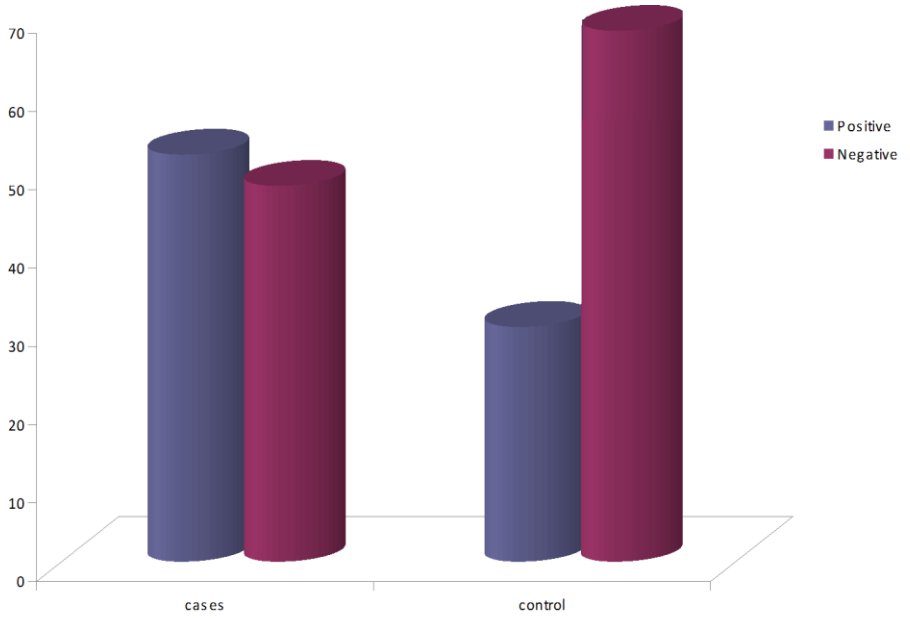


Fig.(8): Comparison between patients & control groups as regarding nasal swabs.

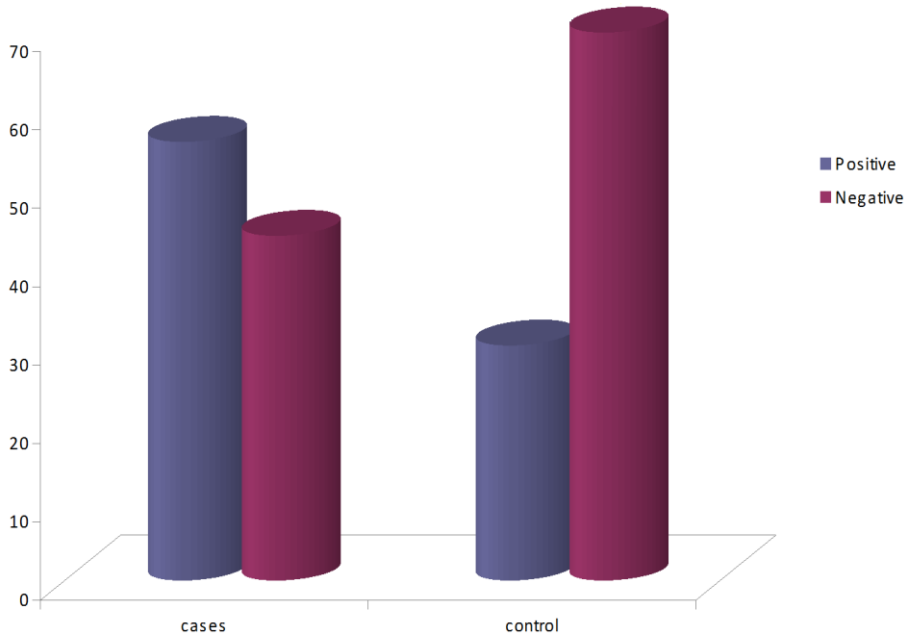


Fig.(9): Comparison between patients & control groups as regarding throat swabs.

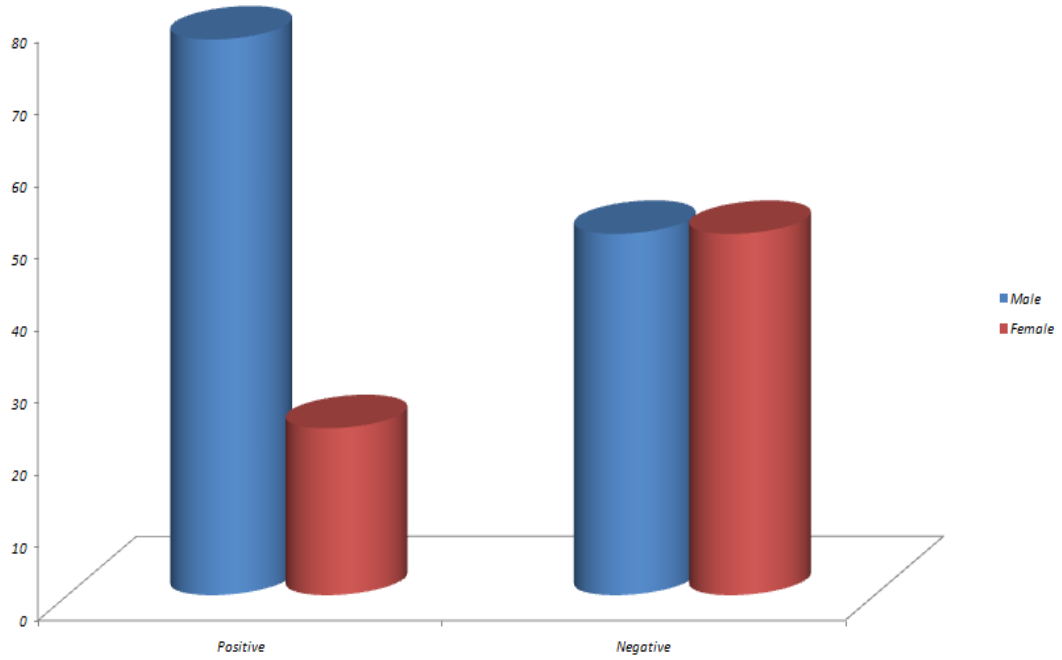


Fig (10) : Comparison between positive & negative nasal swabs for patients group as regarding sex.

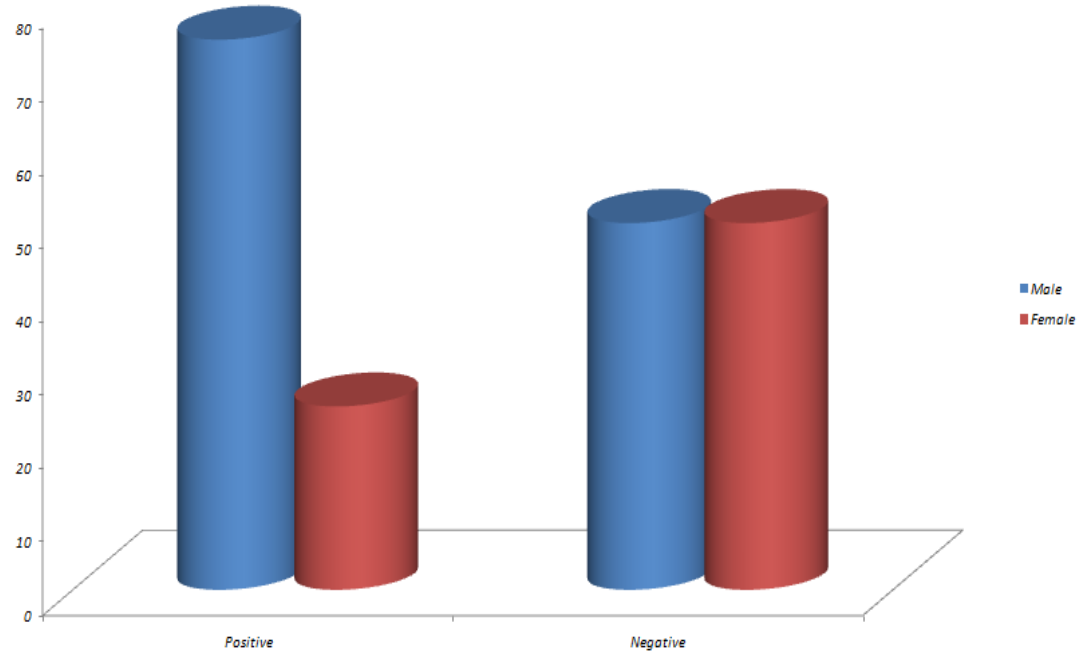
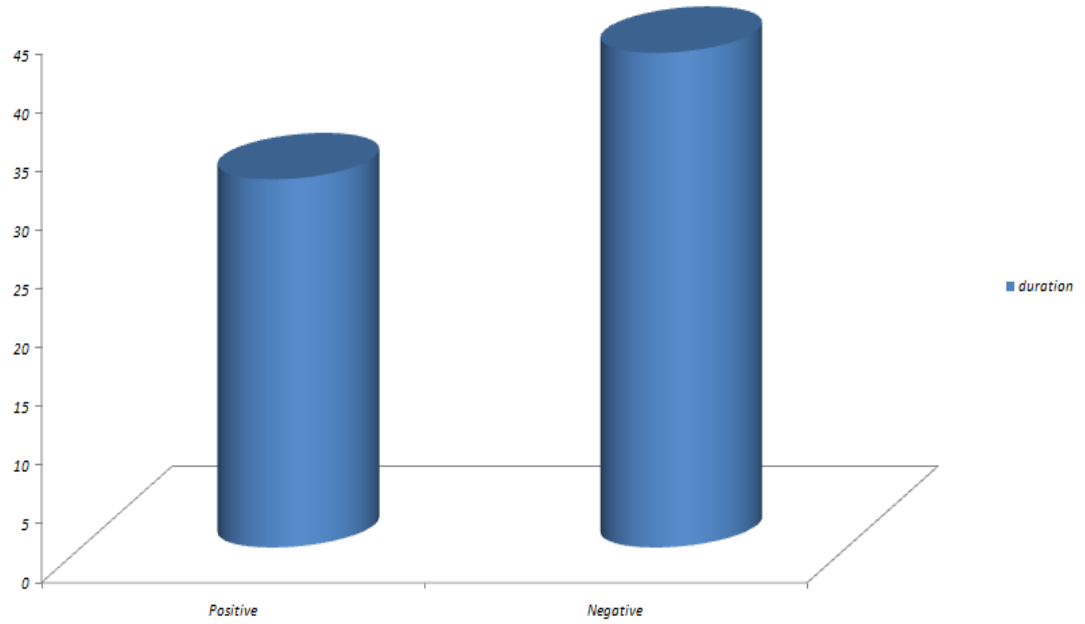
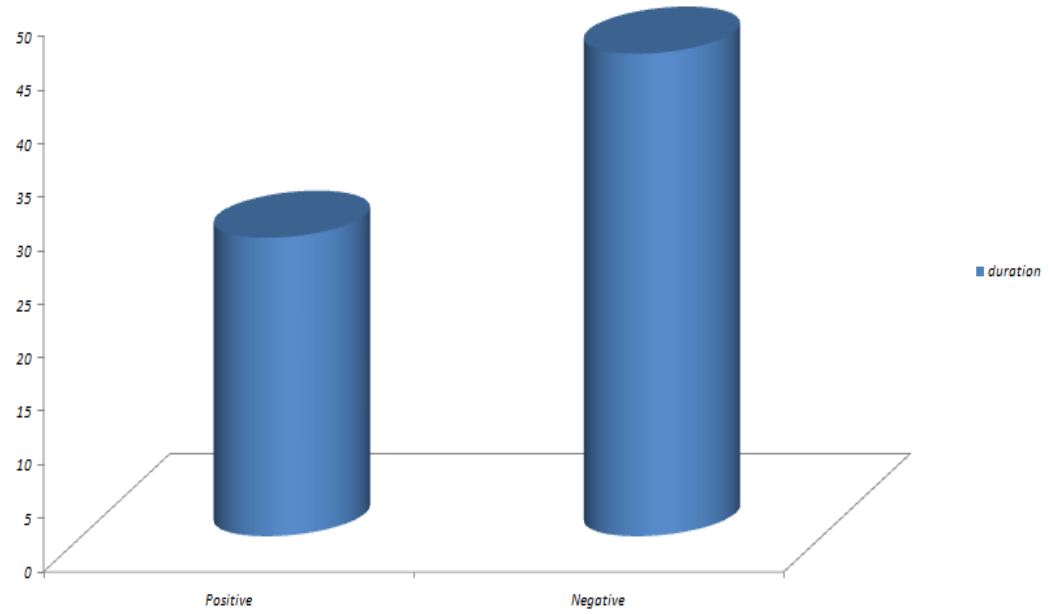


Fig (11) : Comparison between positive & negative throat swabs for patients group as regarding sex.



Fig(12): Comparison between positive & negative throat swabs for patients group as regarding duration of disease.



Fig(13): Comparison between positive & negative nasal swabs for patients group as regarding duration of disease.

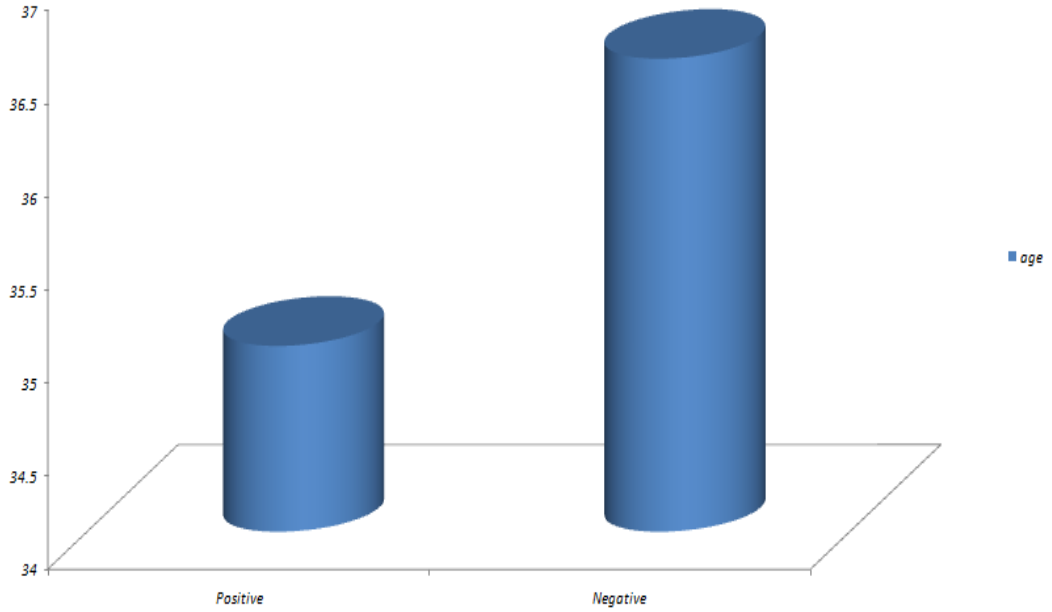


Fig (14) : Comparison between positive & negative throat swabs for patients group as regarding age of patients.

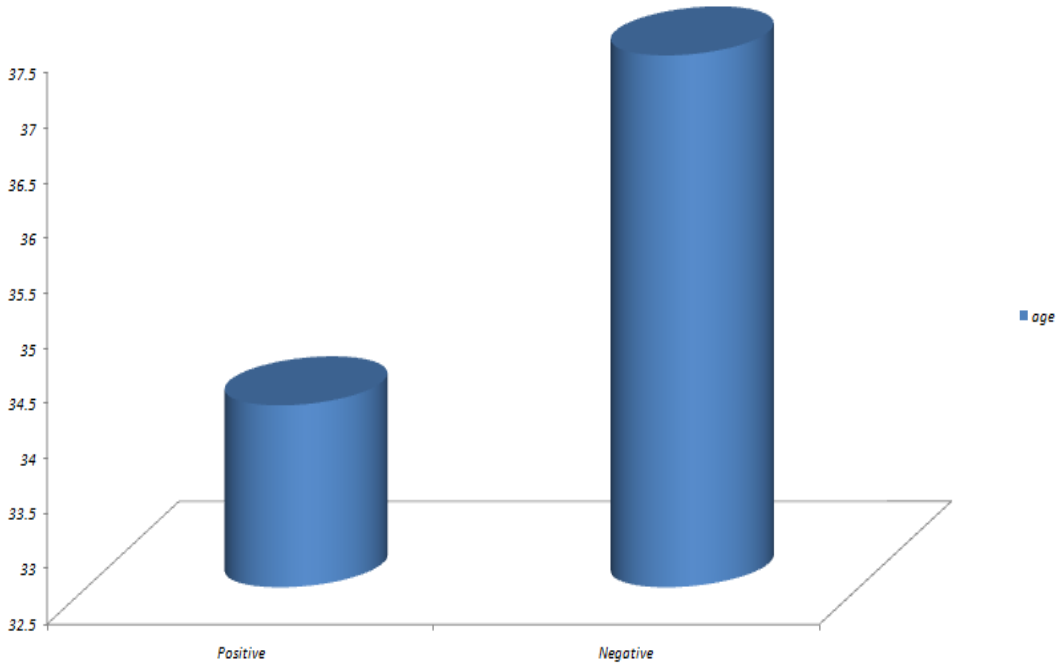


Fig (15) : Comparison between positive & negative nasal swabs for patients group as regarding age of patients.