Results

RESULTS

Twenty five atopic dermatitis patients were randomly selected and included in the study. They were fourteen males and eleven females. Their ages were ranging from 4 months to 20 years (Mean ± SD 3.66±7.54).

The results of the clinical data, revealed the following findings:

1) Family history of atopic diseases was highly significantly positive in sixteen cases (64%) of patients ($P<0.01$).
2) Personal history of other atopic manifestations was positive in three cases (12%), two had bronchial asthma and one had allergic rhinitis associated with eczema.
3) History of relation to environmental factors was positive in three cases (12%), two cases were sensitive to food (egg, Cow's milk), and one case was sensitive to drugs (erythromycin).
4) According to clinical severity scoring, their were:
   Ten mild cases (40%).
   Ten moderate cases (40%).
   Five severe cases (20%).
5) Age of onset:

up to 2 years	18 cases (72%).
2-5 years	4 cases (16%).
> 5 years	3 cases (12%).

6) The frequency of major and minor features in patients with AD and controls is seen in (Table 3).

Table (3): Frequency of major and minor features (%) in patients with AD and controls.

Major features.	**Patients (25)**		**Controls (10)**	
	No.	*%*	*No.*	*%*
Major Features:				
1- Pruritus.	25	100	0	0
2- Chronic or chronically relapsing dermatitis.	23	92	0	0
3- Typical distribution of skin lesion.	22	88	0	0
4- Personal and/or family history of atopy.	19	76	0	0
Minor Features:				
1- Xerosis	21	84	1	10
2- Hand and/or foot dermatitis	15	60	0	0
3- Itch when sweating	15	60	1	10
4- Dennis Morgan Line	14	56	2	20
5- Intolerance to wool	13	52	0	0
6- Course influenced by emotional factors.	12	48	0	0
7- Recurrent skin infection	11	44	0	0
8- Pityriasis alba.	10	40	1	10
9- Orbital darkening	5	20	0	0
10- Food intolerance	2	8	0	0
11- Recurrent conjunctivitis	2	8	0	0
12- Nipple eczema	1	4	0	0
13- Pruritus scroti	1	4	0	0
14- Pruritus vulvae	1	4	0	0
15- Pruritus Ani	1	4	0	0

The results of the laboratory investigations:

I- Staph. aureus colonization:

A highly significant increase in staph aureus colonization was observed in patients compared to controls (table 4) (Fig. 1).

A correlation between the severity of the disease and colonization with staph. aureus has been demonstrated (Table 5) (Fig.2) & (Fig. 3).

The photographic pictures of staph. aureus colonization showed in (Fig. 4)

II- Interleukin-8 measurement in serum:

The individual data of IL-8 values (pg/ml) in sera of controls and AD patients are seen in (Table 6).

IL-8 levels were detected in patients and controls sera :

The mean level of it in patients sera was (16.71±13.26).

While the mean level of it in controls sera was (2.1±1.83).

There was high significant increase in level of IL-8 in patients in comparison to controls ($P<0.01$) (Fig. 5).

From (table 7), there is a highly significant increase in IL-8 level in severe and moderate cases in comparison to control.

Also the severe cases showed a significant increase in IL-8 level when compared to mild cases.

Table (4): Staph. aureus colonization in affected and unaffected skin of AD patients and controls.

	AD patients (25)				**Controls (10)**	
	Affected skin		**Unaffected skin**			
	No.	*%*	*No.*	*%*	*No.*	*%*
Significant colonization	15	60	5	20	0	0
Insignificant colonization	4	16	5	20	1	10
No colonization	6	24	15	60	9	90

Colony count $\geq 10^2$ significant.

Colony count $< 10^2$ insignificant.

Fig. (1) Percentage of staph. aureus colonization in AD patients and controls.

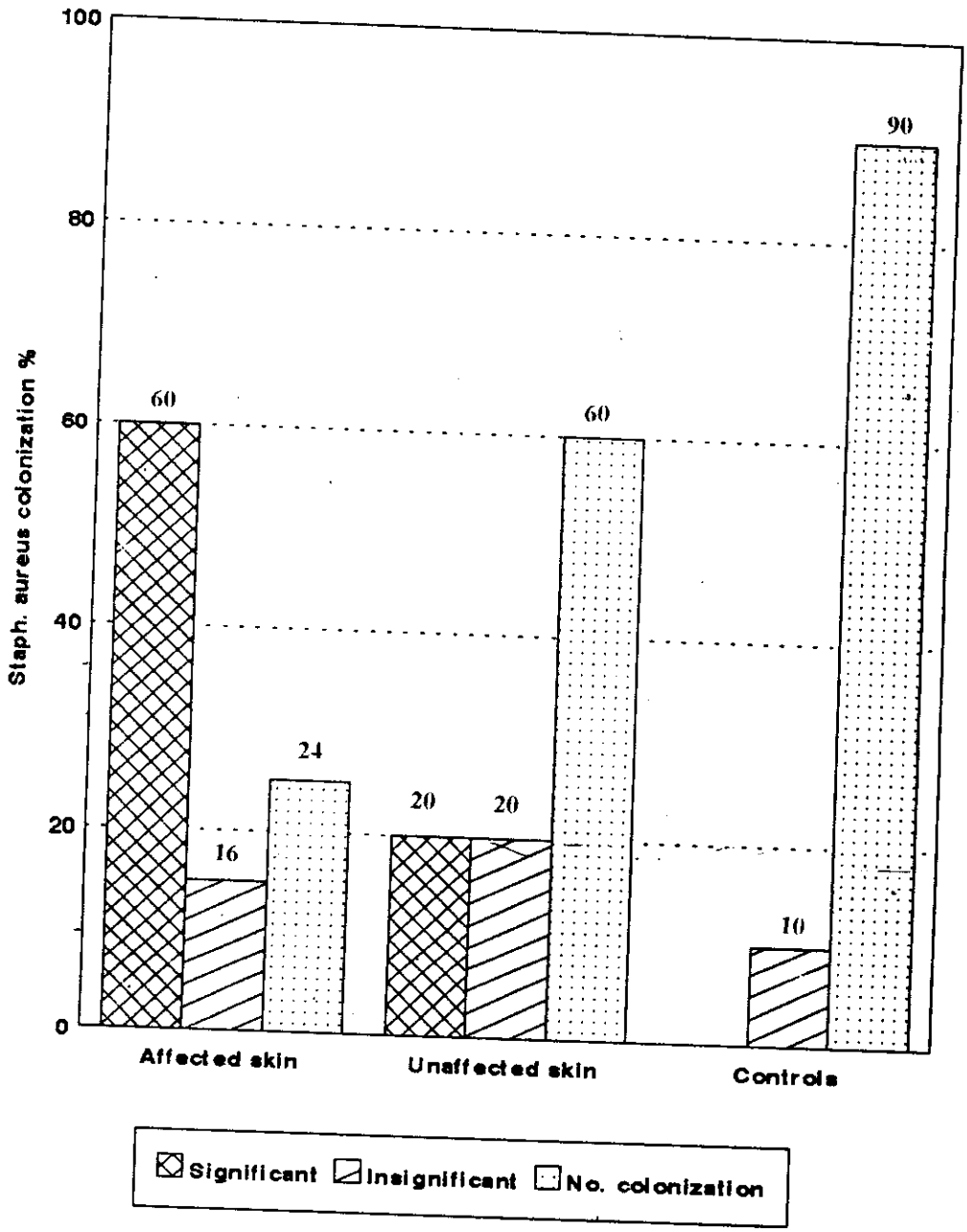

Table (5): Staph. aureus colonization in relation to the severity degree of AD patients.

Severity	No.	Affected skin of AD						Unaffected skin of AD					
		Significant colonization		Insignificant colonization		No colonization		Significant colonization		Insignificant colonization		No colonization	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Mild	10	5	50	1	10	4	40	1	10	1	10	8	80
Moderate	10	6	60	2	20	2	20	2	20	2	20	6	60
Severe	5	4	80	1	20	0	0	2	40	2	40	1	20

Colony count $\geq 10^2$ significant.

Colony count $< 10^2$ insignificant.

Fig. (2): Staph. aureus colonization in the affected skin of AD patient in relation to the degree of severity

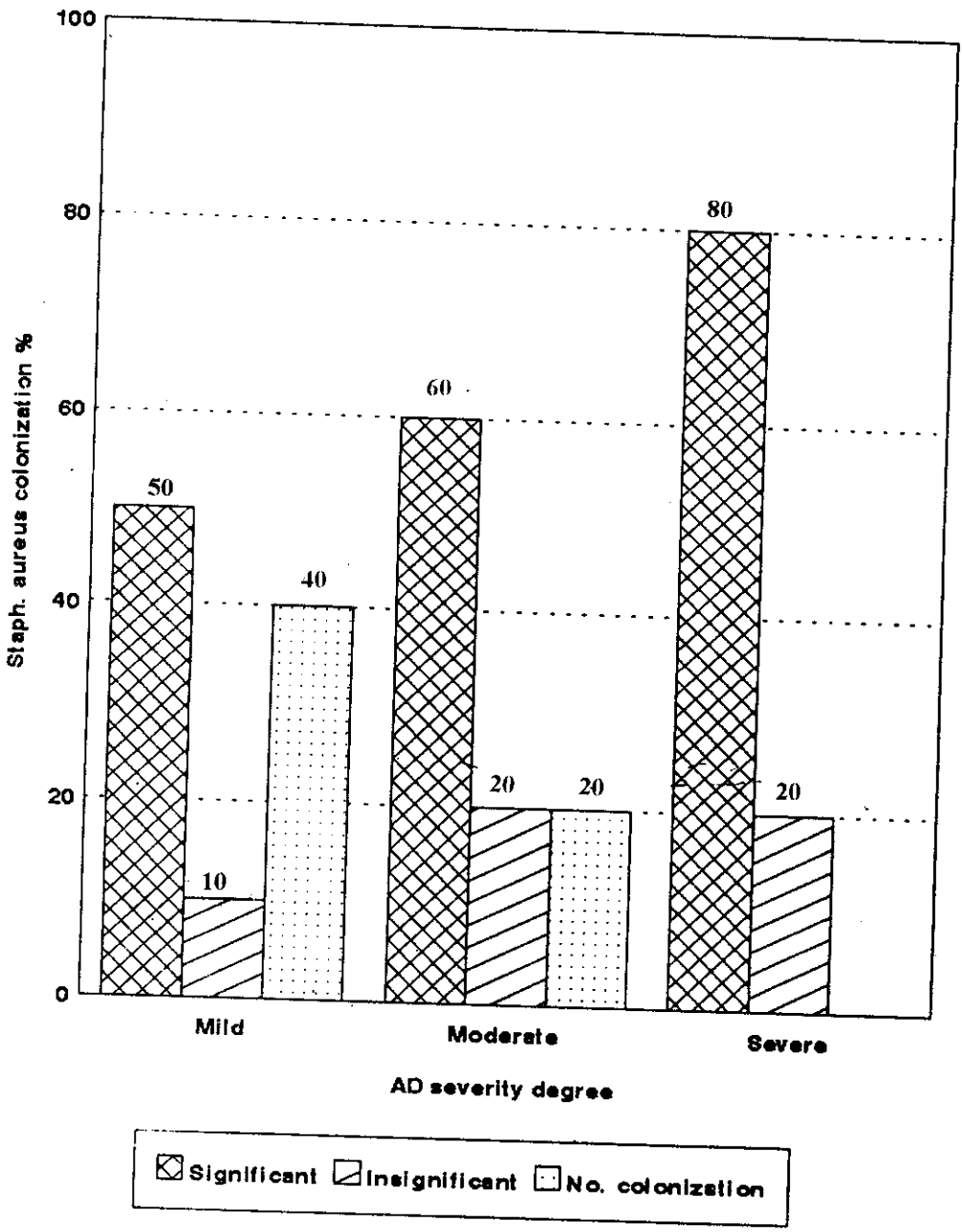

Fig. (3): Staph. aureus colonization in the unaffected skin of AD patient in relation to the degree of severity

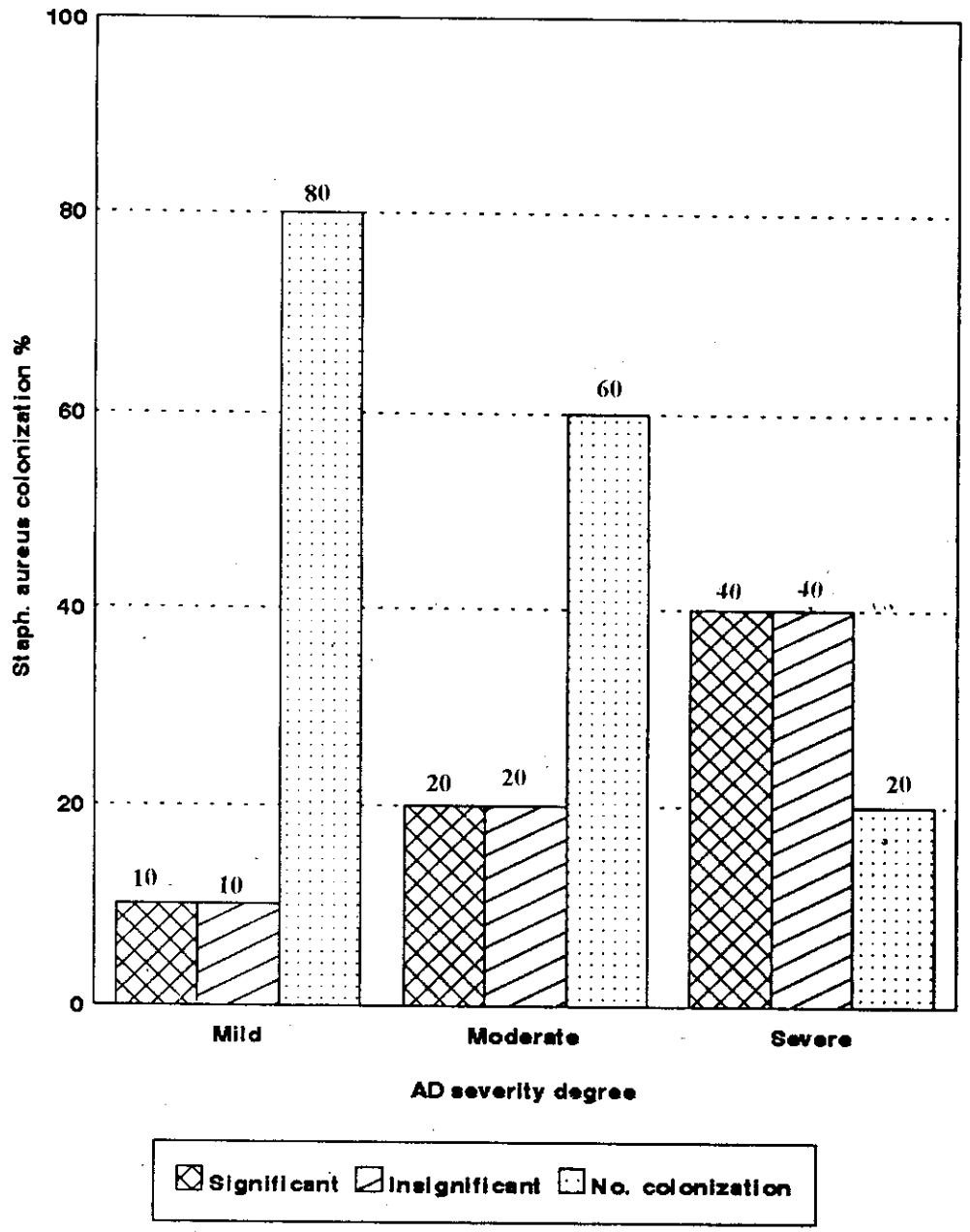

Fig. (4) : The photographic pictures of colonies of staph. aureus microorganisms isolated by contact-plate method in different cases.

(A) No Colonization

(B) Mild Colonization

(C) Moderate Colonization

(D) Severe Colonization

Table (6): Individual data of IL-8 values (pg/ml) in sera of controls and AD patients.

Controls (10)	AD patients		
	Mild (10)	Moderate (10)	Severe (5)
1.0	3.2	17.2	45.1
3.0	5.2	13.2	37.5
0.7	6.3	18.5	12.3
0.6	3.5	10.3	20.3
2.5	7.5	20.5	39.1
4.0	2.5	8.7	
3.3	2.9	27.3	
0.1	3.7	11.5	
5.5	4.3	10.3	
0.3	6.5	9.7	

Fig. (5): Comparison of IL-8 level in patients and controls

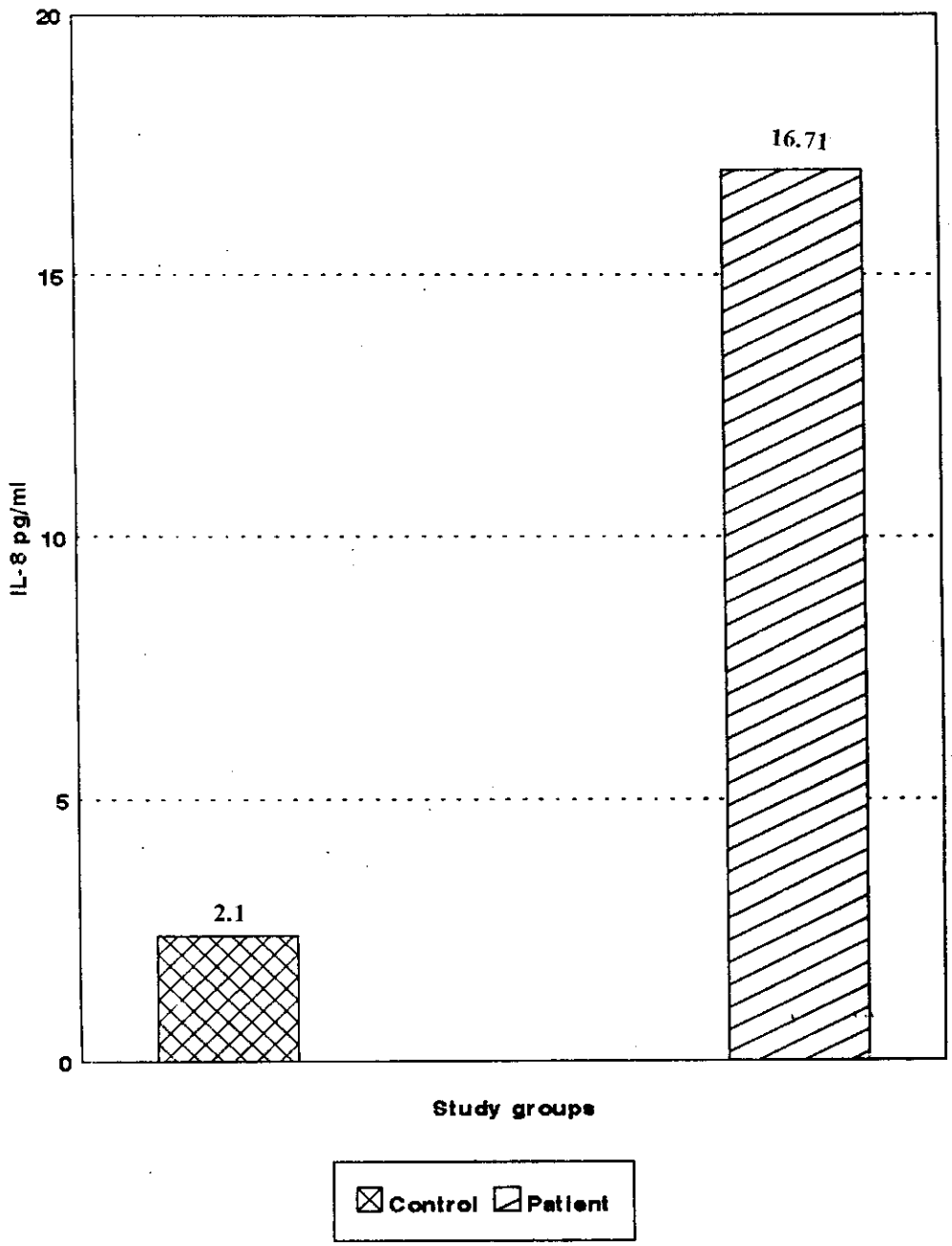

Table (7): Comparison of IL-8 level in controls and disease severity.

	Controls mean ± SD	**AD severity**		
		Mild mean ± SD	**Moderate mean ± SD**	**Severe mean ± SD**
IL-8 pg/ml	2.1 ± 1.8	4.56 ± 1.72	14.72 ± 6.01	30.86 ± 13.88