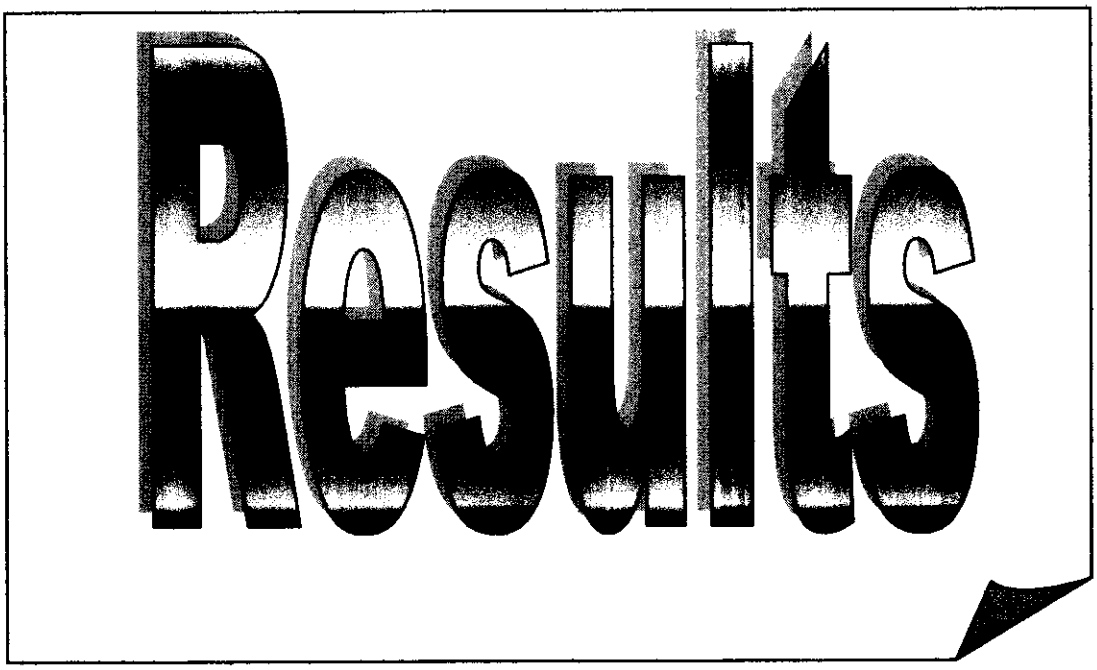

Results

# Results

**Table (10) Socio demographic characteristics of the studied sample:**

| Socio demographic characteristic | Vitiligo group | | Control group | | Total | | $\chi^2$ | P |
|---|---|---|---|---|---|---|---|---|
| | No | % | No | % | No. | % | | |
| **Sex** | | | | | | | | |
| Male | 10 | 25 | 4 | 40 | 14 | 28 | 0.58 | >0.05 |
| Female | 30 | 75 | 6 | 60 | 36 | 72 | | |
| Total | 40 | 100 | 10 | 100 | 50 | 100 | | |
| **Marital status** | | | | | | | | |
| Married | 30 | 75 | 5 | 50 | 35 | 70 | 2.38 | >0.05 |
| Single | 10 | 25 | 5 | 50 | 15 | 30 | | |
| Total | 40 | 100 | 10 | 100 | 50 | 100 | | |
| **Occupation** | | | | | | | | |
| House-wife | 18 | 45 | 2 | 20 | 20 | 40 | 4.72 | >0.05 |
| Professional | 7 | 17.5 | 2 | 20 | 9 | 18 | | |
| Skilled workers | 5 | 12.5 | 4 | 40 | 9 | 18 | | |
| Students | 10 | 25 | 2 | 20 | 12 | 24 | | |
| Total | 40 | 100 | 10 | 100 | 50 | 100 | | |

**Table (11) Mean, range and standard deviation of age of patients in vitiliginous and control groups**

| Age (ys) | Vitiligo-group N=40 | Control-group n=10 | T | P |
|---|---|---|---|---|
| Mean ± S.D | 36.98 ±15 | 28.50 ± 14.14 | 1.2 | >0.05 |
| Range: Minimum Maximum | 13 75 | 12 56 | | |
| Mode | 17 | 12 | | |

**Table (12) skin type of studied group**

| No. of pts / Skin type | Group I | | Group IIA | | Group IIB | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| II | 1 | 10 | 1 | 6.7 | 3 | 20 | 5 | 12.5 |
| III | 4 | 40 | 7 | 46.7 | 7 | 46.7 | 18 | 45 |
| IV | 5 | 50 | 7 | 46.7 | 5 | 33.3 | 17 | 42.5 |
| Total | 10 | 100 | 15 | 100 | 15 | 100 | 40 | 100 |

**Chart (1) Skin Type Of Studied Groups**

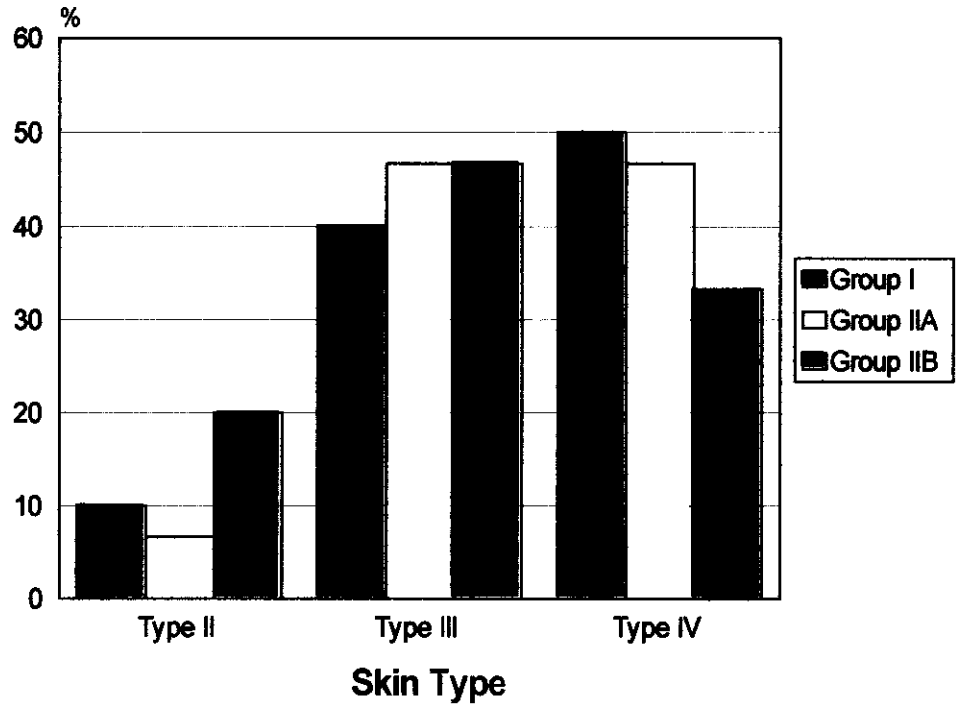



**Chart (2) Site Of Affection In Vitiligo Group**

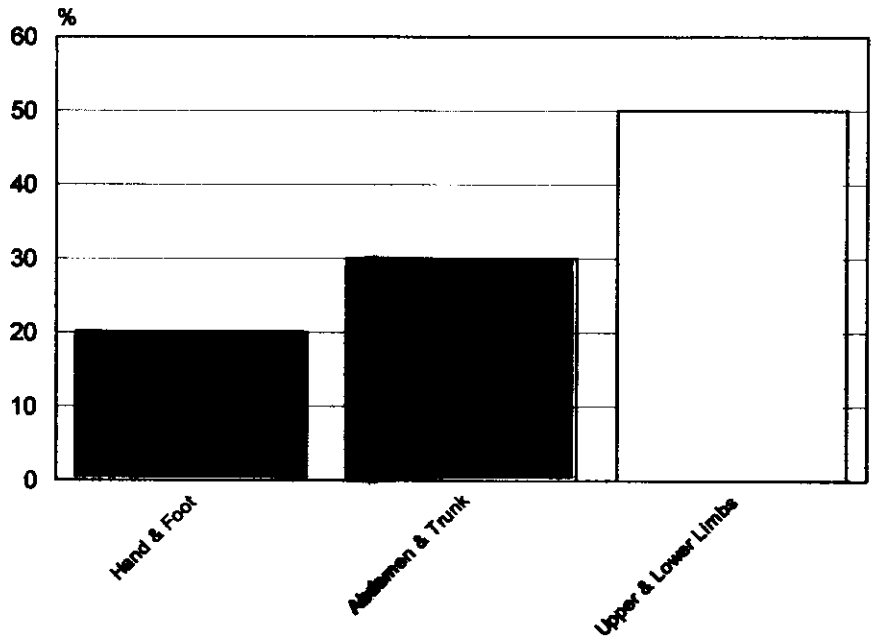


**Table (13) site of affection in vitiligo group**

| No. of pts / Site of vitiligo | Group I | | Group IIA | | Group IIB | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| Hand & Foot | 3 | 30 | 4 | 26.7 | 1 | 6.7 | 8 | 20 |
| Abdomen & Trunk | 3 | 30 | 3 | 20 | 6 | 40 | 12 | 30 |
| Upper & Lower limbs | 4 | 40 | 8 | 53.3 | 8 | 53.3 | 20 | 50 |
| Total | 10 | 100 | 15 | 100 | 15 | 100 | 40 | 100 |

**Table (14) percentage of patients according to the duration of detachement of grafts**

| Time of Detachment of Grafts | Patients | |
|---|---|---|
| | No. | % |
| After 2 weeks | 10 | 40 |
| After 3 weeks | 9 | 36 |
| After ≥1 month | 6 | 24 |
| Total | 25 | 100 |

## Chart (3) Percentage Of Patients According To The Duration Of Detachement Of Grafts

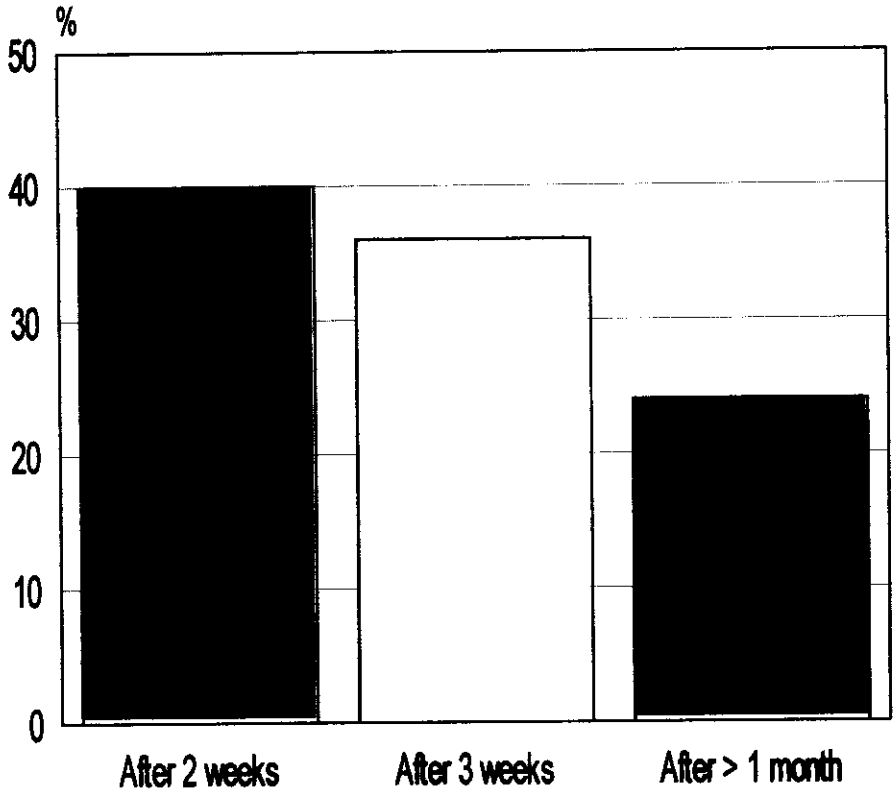


**Table (15) Percentage of improvement of tested site versus that in the rest of the body in-group II A:**

| Percentage of Improvement | <25% | | 25-50% | | >50% | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| Tested Site | 6 | 40 | 2 | 13.3 | 7 | 46.7 | 15 | 100 |
| Rest of The body | 6 | 40 | 2 | 13.3 | 7 | 46.7 | 15 | 100 |

**Chart (4) Percentage Of Improvement Of Tested Site Versus That In The Rest Of The Body In Group IIA**

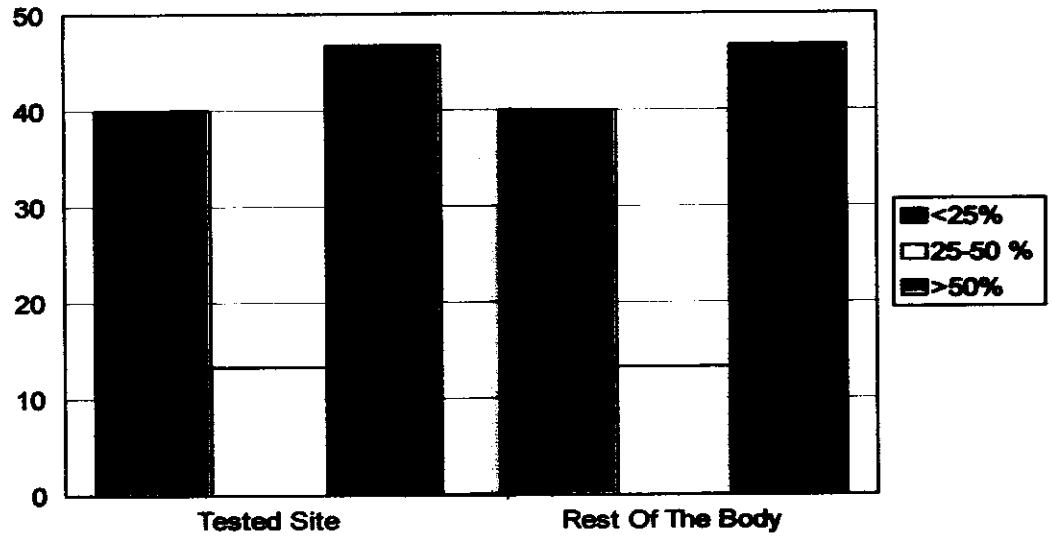


**Table (16): Percentage of improvement of tested site versus that in the rest of the body in-group II B:**

| Percentage of Improvement | <25% | | 25-50% | | >50% | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| Tested Site | 3 | 20 | 4 | 26.7 | 8 | 53.3 | 15 | 100 |
| Rest of The body | 6 | 40 | 6 | 40 | 3 | 20 | 15 | 100 |

$\chi^2 = 6.5$
$P < 0.05$

**Chart (5) Percentage Of Improvement Of Tested Site Versus That In The Rest Of The Body In Group IIB**

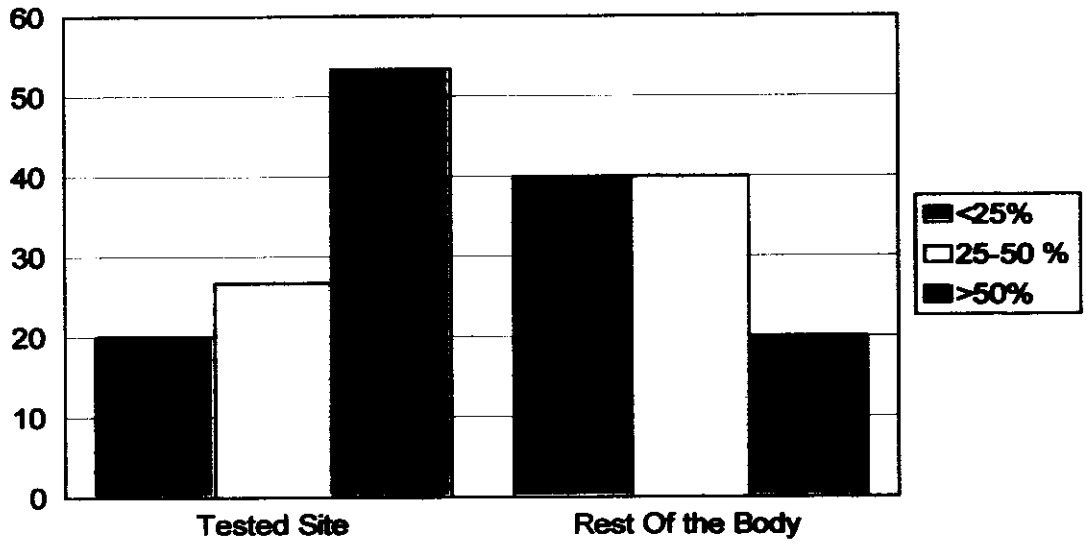


**Table (17) Percentage of improvement of studied cases in-group II according to the skin type**

| Skin type* | <25% | | 25-50% | | >50% | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No | % | No | % | No | % | No | % |
| II | 2 | 25 | 1 | 14.3 | 1 | 6.7 | 4 | 13.3 |
| III | 2 | 25 | 3 | 42.9 | 9 | 60 | 14 | 46.7 |
| IV | 4 | 50 | 3 | 42.9 | 5 | 33.3 | 12 | 40 |
| Total | 8 | 100 | 7 | 100 | 15 | 100 | 30 | 100 |

*** According to Fitzpatrick classification**

$\chi^2 = 3.1$

$P > 0.05$

## Chart (6) Percentage Of Improvement Of Studied Cases In Group II According To The Skin Type

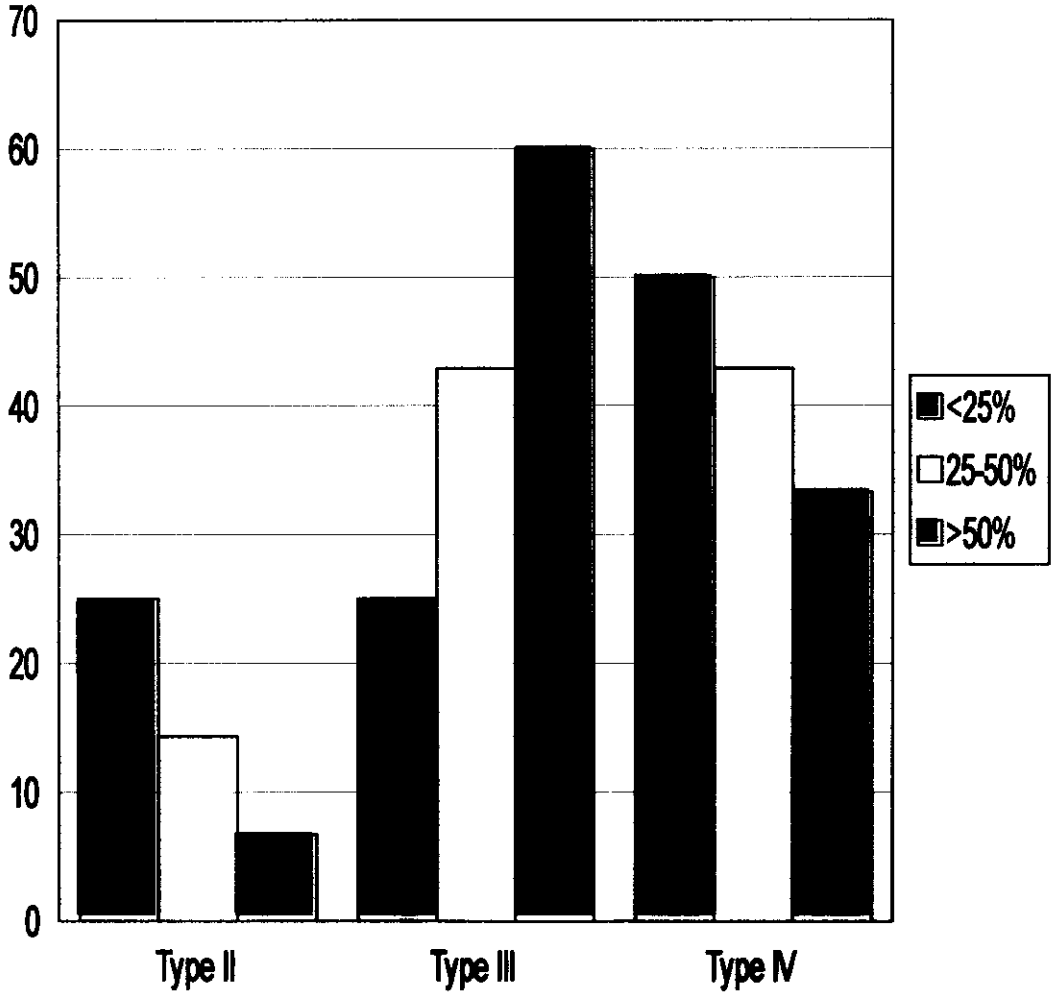


**Table (18) the percentage of improvement of studied cases in-group II according to exposure to exacerbating factors (stress)**

| Exacerbating factors | <25% | | 25-50% | | >50% | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No | % | No | % | No | % | No | % |
| Stress | 5 | 62.5 | 2 | 28.6 | 3 | 20 | 10 | 33.3 |
| None | 3 | 37.5 | 5 | 71.4 | 12 | 80 | 20 | 66.7 |
| Total | 8 | 100 | 7 | 100 | 15 | 100 | 30 | 100 |

$\chi^2 = 4.3$
$P > 0.05$

## Chart (7) Percentage Of Improvement Of Studied Cases In Group II According To Exposure To Exacerbating Factors

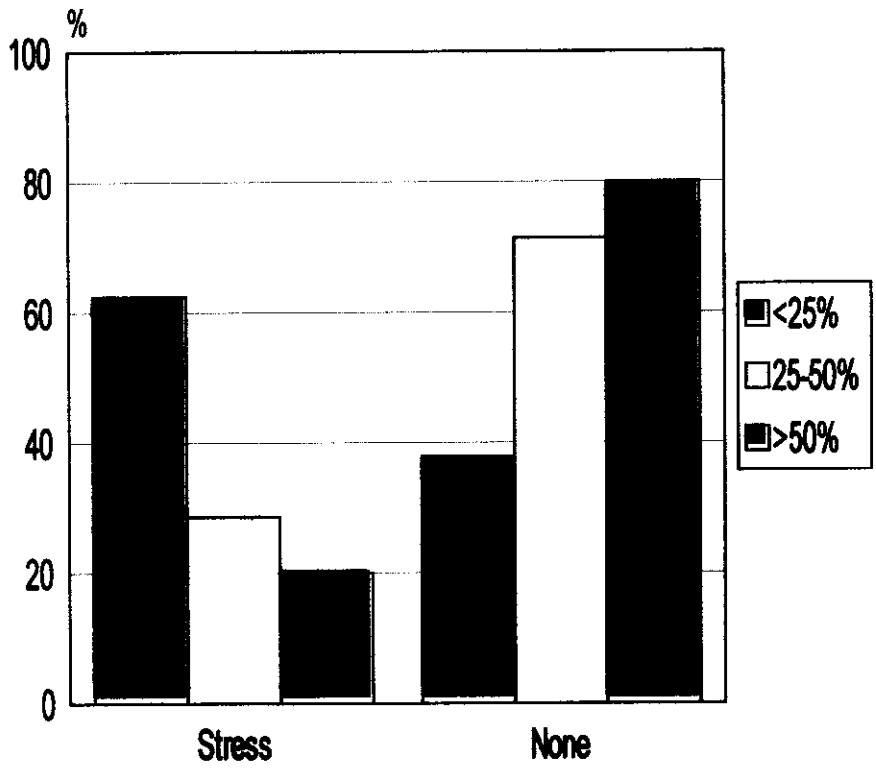


**Table (19) the percentage of improvement of studied cases in-group II according to tested sites**

| Tested site | <25% | | 25-50% | | >50% | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No | % | No | % | No | % | No | % |
| Hand & Foot | 4 | 50 | 1 | 14.3 | 0 | 0 | 5 | 16.7 |
| Abdomen & Trunk | 1 | 12.5 | 1 | 14.3 | 7 | 46.7 | 9 | 30 |
| Upper & Lower limbs | 3 | 37.5 | 5 | 71.4 | 8 | 53.3 | 16 | 53.3 |
| Total | 8 | 100 | 7 | 100 | 15 | 100 | 30 | 100 |

$\chi^2 = 11.4$
$P < 0.05$

## Chart (8) Percentage of Improvement Of Studied Cases In Group II According To Tested Sites

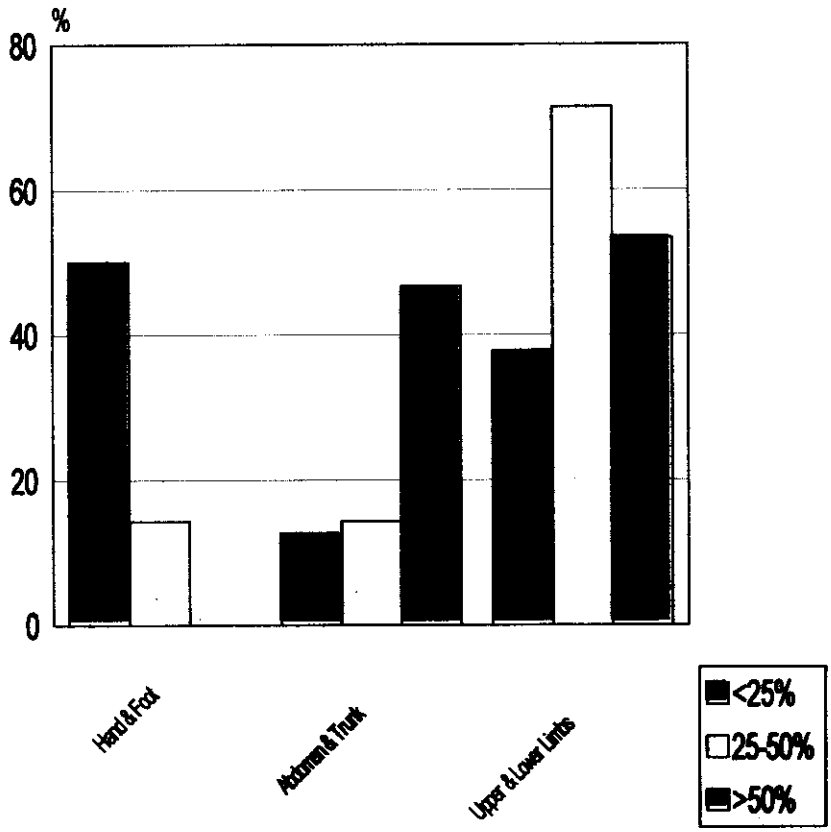


**Table (20) Duration of illness according to percentage of improvement of studied cases in group II**

| Duration of illness (years) | <25% | | 25-50% | | >50% | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No | % | No | % | No | % | No | % |
| <5 | 1 | 12.5 | 3 | 42.9 | 10 | 66.7 | 14 | 46.6 |
| 5-10 | 1 | 12.5 | 3 | 42.9 | 4 | 26.7 | 8 | 26.7 |
| >10 | 6 | 75 | 1 | 14.3 | 1 | 6.7 | 8 | 26.7 |
| Total | 8 | 100 | 7 | 100 | 15 | 100 | 30 | 100 |

$\chi^2 = 14$
$P < 0.001$

Chart (9) Duration Of Illness According Of Percentage Of Improvement Of Studied Cases In Group II

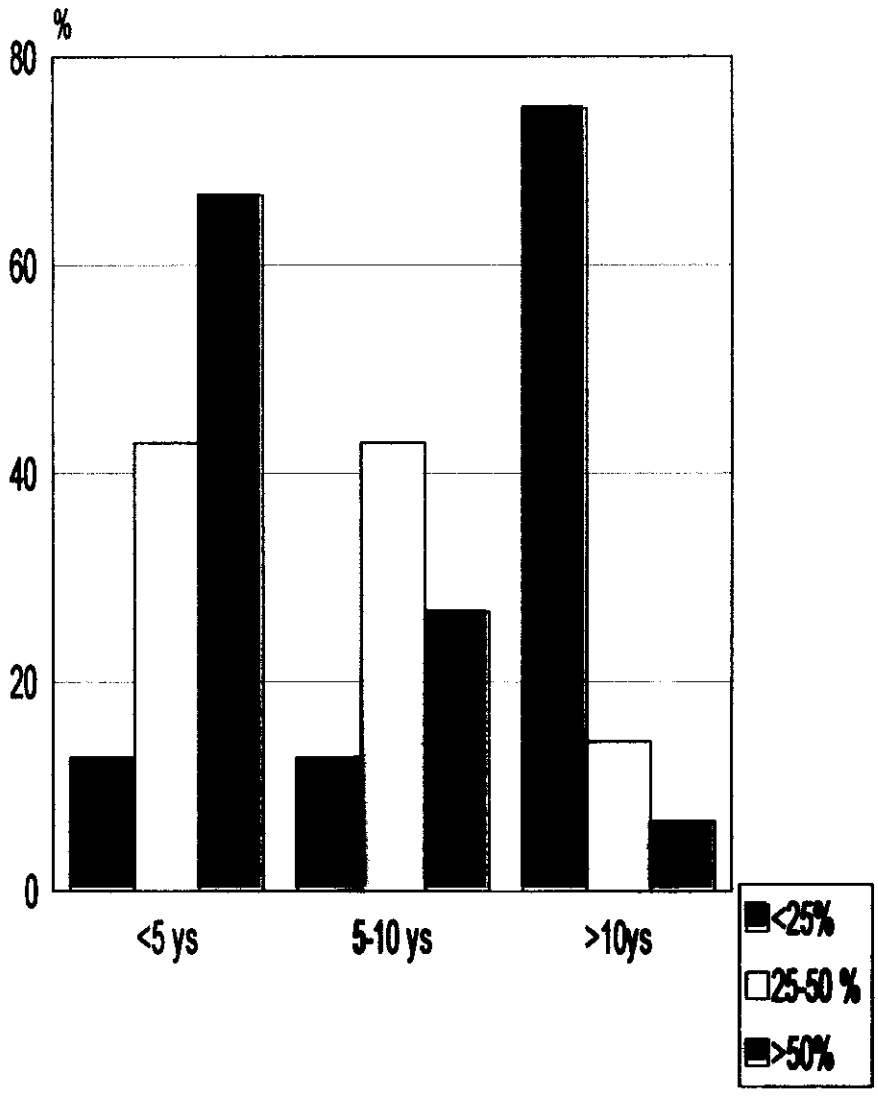


**Table (21) Means & standard deviation of studied group (Vitiligo group & control group):**

| Laboratory Diagnosis | sICAM-1 pre ttt n.=40 $\bar{X} \pm S.D$ | sICAM-1 post ttt n.=40 $\bar{X} \pm S.D$ | sICAM-1 control n.=10 $\bar{X} \pm S.D$ | t | P |
|---|---|---|---|---|---|
| sICAM-1 pre ttt versus sICAM-1 post ttt | 348 ± 77.5 | 257.7 ± 68 | | 3.93 | <0.05 |
| sICAM-1 pre ttt versus sICAM-1 control | 348 ± 77.5 | | 230 ± 84.7 | 3.02 | <0.05 |
| sICAM-1 post ttt versus sICAM-1 control | | 257.7 ± 68 | 230 ± 84.7 | 0.74 | >0.05 |

## Chart (10) Means Of Studied Groups (Vitiligo & Control Group)

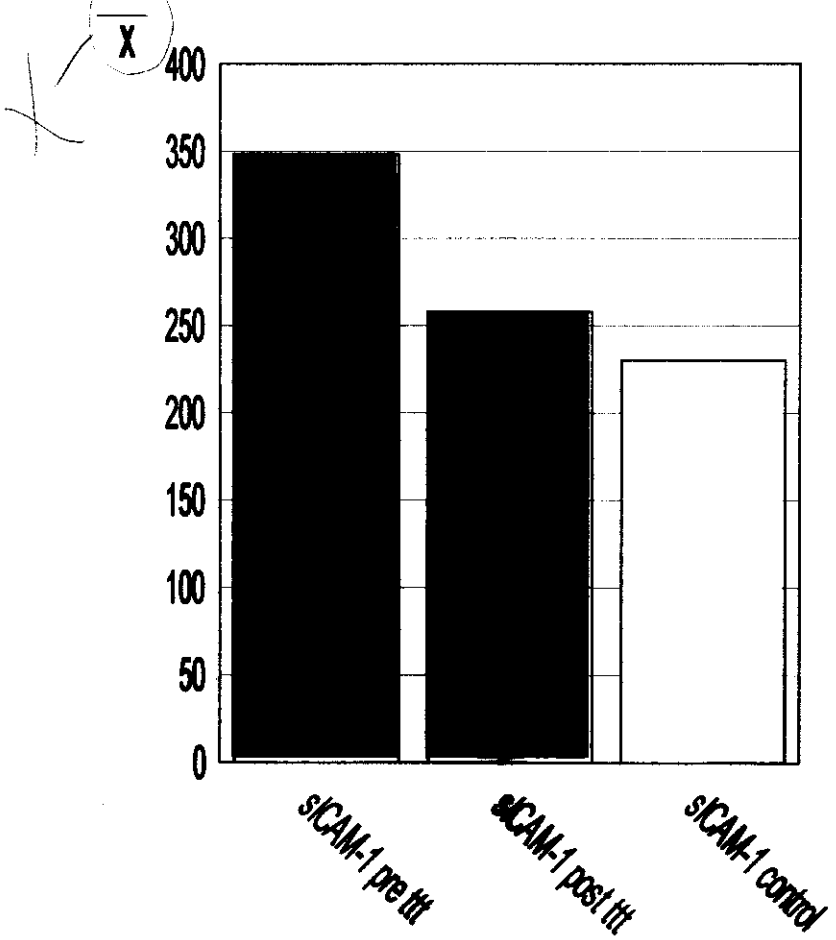


**Table (10)** illustrated that more than 70 percent of studied cases and control groups were females and approximately the same percentage of the studied groups were married. Forty percent were housewives. The difference between vitiligo and control group was statistically insignificant, P>0.05

**Table (11)** the mean age of the studied vitiligo and control groups are 36.98 ± 15 and 28.50 ± 14.14 simultaneously; there is no statistical significant between the two groups regarding the age P>0.05

**Table (12) and chart (1)** showed that studied patients in vitiligo groups had three different types of skin color classified according to Fitzpatrick classification, but the most common was skin type III (45%) followed by skin type IV (42.5%)

**Table (13) and chart (2)** illustrated that studied patients had vitiligo in different parts of the body, but the most common site was in the upper and lower limbs (50%) followed by those in the abdomen and trunk (30 %).

**Table (14) and chart (3)** illustrated that 50 percent of studied patient's in-group I had graft rejection after three weeks, while 40 percent had rejection after two weeks and only 10 percent had retained their graft for only 1 month.

**Table (15) and chart (4)** demonstrate that percentage of improvement of vitiligo cases in tested sites and the rest of the body were equally distributed in studied categories of group IIA where suction blisters for epidermal grafting and PUVA were the methods of intervention for treatment, denoting the response for PUVA therapy only, with almost half of the patients (46.7%) having more than 50 percent improvement and the rest of the studied patients were distributed as: 40% having improvement less than 25 percent and 13.3% having improvement between 25 to 50 percent.

**Table (16) and chart (5)** clearly showed that about (20%) of the studied cases of vitiligo in the tested sites in-group II B, {suction induced blister and PUVA were the methods of intervention for treatment} gave less than 25 percent improvement versus 40% improvement in the rest of the body. In the next category ~~of improvement~~ 25 to 50 percent improvement, the condition was almost the same. The percentage of improvement in both tested site and rest of the body (26.7%) and (40%) respectively. On the other hand (53.3%) of studied vitiligo cases were improved more than 50 percent while the rest of the body showed only (20%) improvement. The difference between the two studied groups is statistically significant, $P < 0.05$

**Table (17) and chart (6)** illustrated that the percentage of improvement of studied cases in group II according to skin type showed that, patients with skin type II were about (4 patients) 13.3% and they had different percentage of improvement after treatment; 2

patients represented with less than 25 percent improvement after treatment and the other 2 patients were equally distributed between 25 to 50 percent as 14.3% and in the more than 50 percent improvement categories as 6.7%

Fourteen patients (46.7%) had skin type III, where nine patients (60%) had more than 50 percent improvement; while only three patients (42.9%) had 25 to 50 percent improvement and the remaining two patients (25%) showed only 25 percent improvement after treatment.

Twelve patients (40%) had skin type IV, where four of them (50%) had less than 25 percent improvement; while three patients (42.9%) had 25 to 50 percent improvement and the last five patients (33.3%) showed more than 50 percent improvement after treatment.

It is noticeable from **(table, 17)** that cases of vitiligo group with improvement less than 25 percent were doubled in skin type IV than those in skin type II or III. Improvement by 25 to 50 percent in skin type III and IV had the same percentage of studied cases (42.9%), meanwhile skin type III toped the list of improvement more than 50 percent; they represented by 60% of the studied vitiligo cases in this category.

The percentage of improvement of studied cases in group II which includes patients in group II A and those in group II B according to skin type were statistically insignificant where the P > 0.05

**Table (18) and chart (7)** illustrated the percentage of improvement of studied cases in-group II according to exposure to exacerbating factors such as stressful situations. Ten patients of studied groups (33.3%) gave history of exposure to stressing factors, five of them (62.5%) gave less than 25 percent improvement, while two patients (28.6%) had 25 to 50 percent improvement and the remaining three cases (20%) gave more than 50 percent improvement.

Twenty patients (66.7%) gave no history of any type of exacerbating factors that may influence the course of vitiligo. Twelve patients (80%) with negative history of exacerbating factors had more than 50 percent improvement, while five patients (71.4%) had 25 to 50 percent improvement versus only three patients (37.5%) which had less than 25 percent improvement.

The difference between the presence of positive and negative history of exacerbating factors especially exposure to stress regarding the percentage of improvement was statistically insignificant, P>0.05

**Table (19) and chart (8)** it is obvious from this table that almost half of the studied patients with lesions either on the upper and lower limbs or on the abdomen and trunk (53.3% and 46.7%) respectively had more than 50 percent improvement in contrast to those found on the dorsal aspect of the foot and hand which had a zero percent in the same category

Meanwhile 50% of patients with hand and foot lesions lie in the category of less than 25 percent improvement. The difference regarding the tested site and percentage of improvement was statistically significant; P<0.05

**Table (20) and chart (9)** illustrated the impaction of duration of illness on the percentage of improvement in-group II of studied cases. This table showed that the highest percentage (66.7%) in category of more than 50 percent improvement was gained by patients whom their duration of illness was less than five years versus those with more than ten years duration who gained only 6.7% in the same category.

In the category of 25 to 50 percent improvement patients with less than five years or from five to ten years duration of illness had the same percentage of improvement (42.9%)

While patients with duration of illness more than ten years; (75%) tope the list in the category less than 25 percent improvement

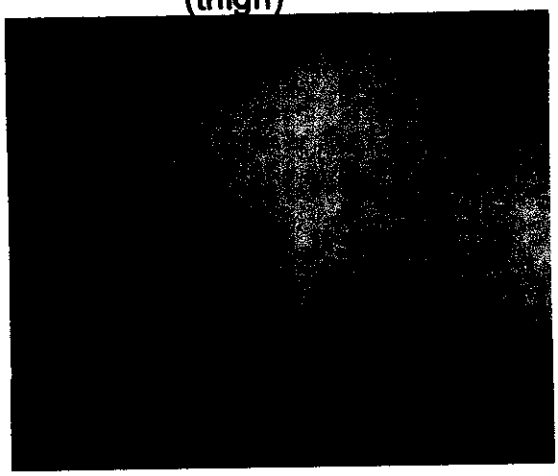
The difference regarding the duration of illness and percentage of improvement was statistically highly significant (P<0.001).

**Table (21) and chart (10)** which illustrated means and standard deviation of studied groups (vitiligo group and control group). Laboratory diagnosis of blood serum of the studied vitiliginous cases

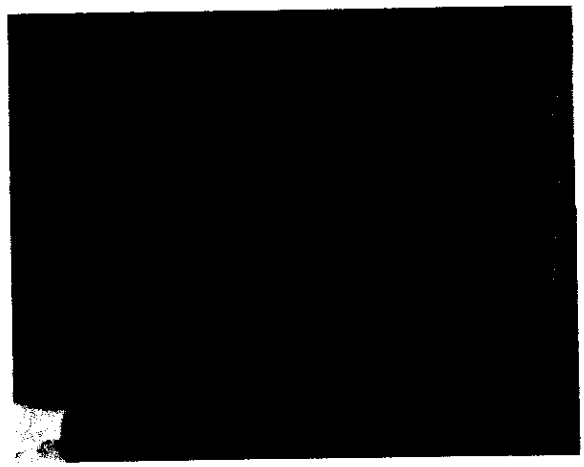
pre treatment shows that the mean of sICAM-1 is obviously higher 348 ± 77.5 versus 257.7 ± 68 in blood serum of the same patients post treatment. Again, blood serum of sICAM-1 post treatment is still more or less higher 257.7 ± 68 sICAM-1 in the control group (230 ± 84.7). The level of sICAM-1 pre treatment versus post treatment and sICAM-1 pre treatment versus sICAM-1 in control group are statistically significant ( $P < 0.05$ ). Meanwhile sICAM-1 post treatment versus sICAM-1 in control group is insignificant statistically ( $P > 0.05$ ).

**Picture (1): Of a patient in group I**

Cryo-induced blister in the donor site (thigh)



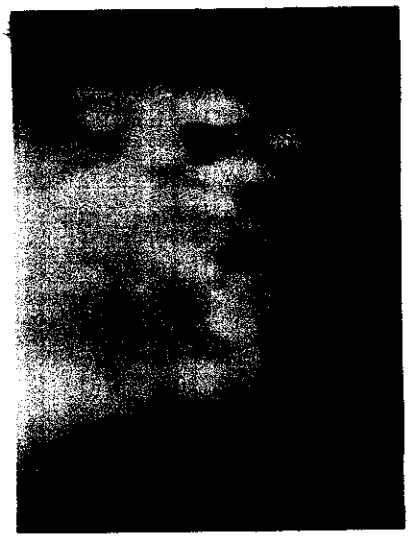
Recipient site (neck)



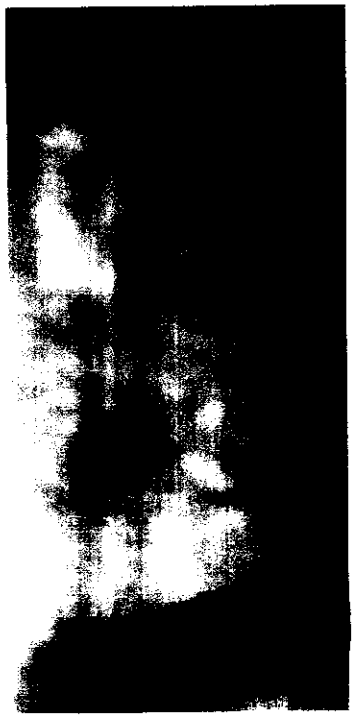
After 2 weeks (graft rejection with a crust which fell after 1 week)

Picture (2): Of a patient in group IIA

Before treatment (vitiliginous lesion On the forehead)



After I months of epidermal graft rejection with formation of a temporary crust.



Pigmentation appeared in all lesions

**After 3 months of PUVA therapy**

**Picture (3): Group IIB**

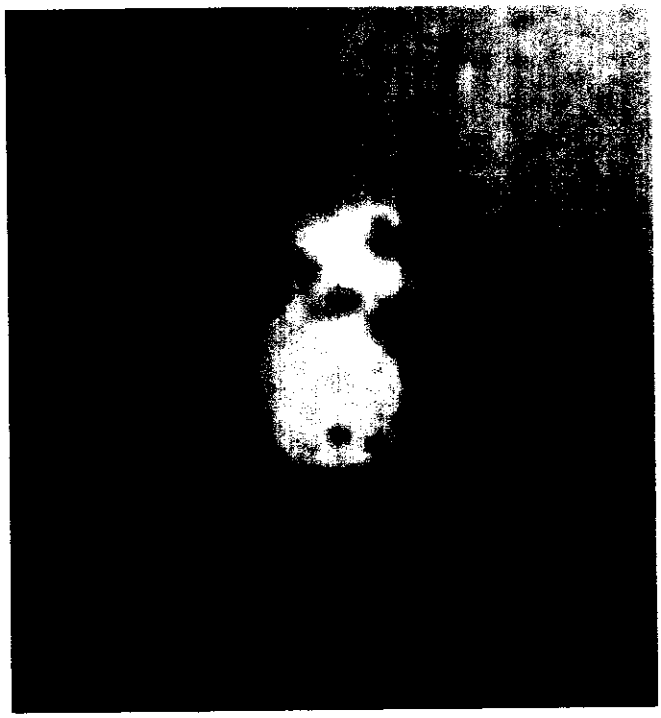
Suction blister mid way between the vitiliginous and normal skin

Sometimes the blisters are hemorrhagic

Picture (4): Group IIB

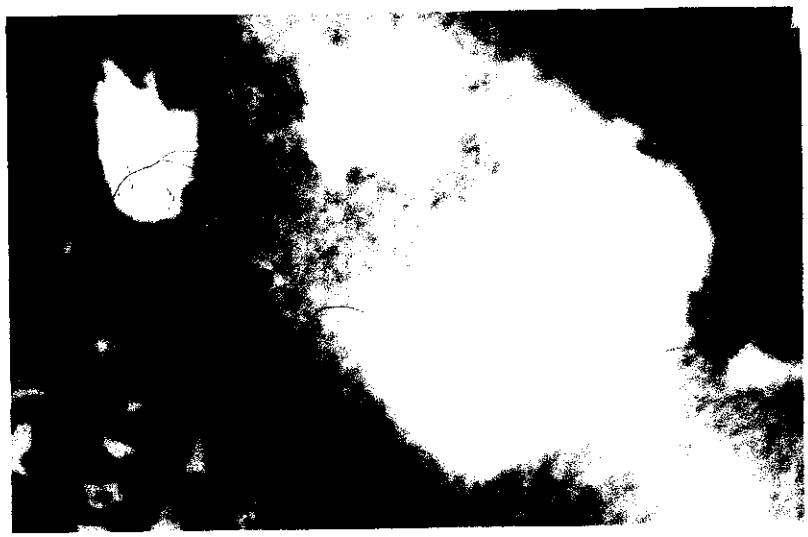
Before treatment

After treatment

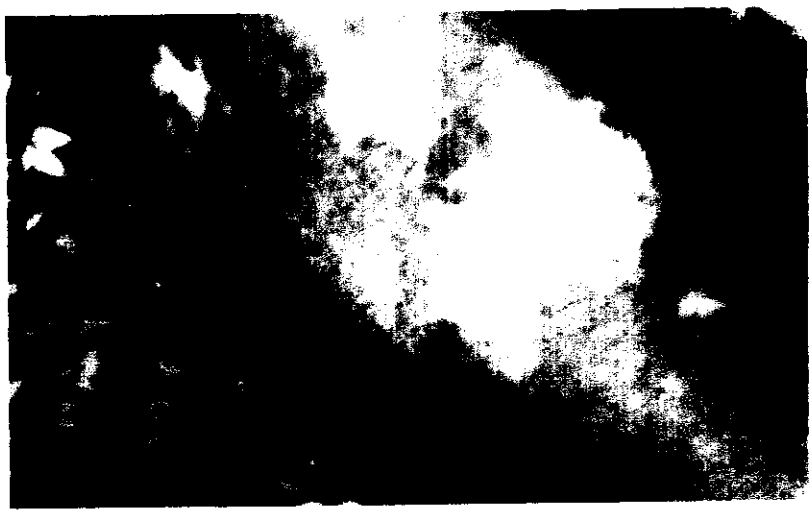


Picture (5): group IIB

Before treatment



After treatment



Picture (6): group IIB

Before treatment

After treatment