RESULTS

The study was carried out during a period from March 1994 to October 1997 in Benha University Hospital and General Hospital of Mansoura.

The study included 30 patients with psoriasis vulgaris and 20 age matched normal control.

The age of the patients ranged between 14 and 69 years with a mean and standard deviation (SD) of 37.7±13.4 years. The age of the control group ranged between 25 and 50 years with a mean and SD of 37.2±7.6 years.

The sex of the patients group was 11 males (36.7%) and 19 females (63.3%) and in the control group was 9 males (45%) and 11 females (55%).

Distribution of the patients according to PASI (table 1):

The value of PASI less than 40 was in 23 patients (76.7%) and more than 40 in 7 patients (23.3%).

Sex distribution of the patients according to PASI :

The PASI value less than 40 in 8 males (34.8%) and in 15 females (65.2%) of total number 23 patients and PASI value more than 40 in 3 males (42.9%) and in 4 females (57.1%).

The age of patients according to PASI :

PASI less than 40 in the age ranged between 22-59 years with mean value 38 and SD ± 11.1 and in PASI more than 40 the age ranged between 14-69 years with mean value 36.7 and SD ± 20.5 and no significant difference .

The duration of the disease among the patients according to PASI: (table 2):

In PASI score less than 40, the range of duration of the disease was 0.1-10 years and the mean value was 2.8 ± 2.8 years and in PASI score more than 40, the range of duration of the disease was 0.5-20 years and the mean value was 8.1 ± 7.3 years with significant difference ($P < 0.05$).

Family history of psoriasis among the patients according to PASI:

In PASI score less than 40, there was 20 patients (87%) with positive family history and 3 patients with negative family history and in PASI score more than 40 , there was 6 patients (85.7%) with positive family history and 1 patients (14.3%) with negative family history with no significant difference.

The level of serum interlukin-2 receptor (IL2R) in the patients (table 3):

The serum level of IL2R in the patients ranged from 318 u/ml to 3881.6 u/ml with mean value 1247.9±867.8 u/ml and the serum

IL2R in the control ranged from 77.5 u/ml to 202 u/ml and the mean value 111.9±32.4 u/ml. There was highly significant difference of the serum IL2R between the patients and control (P <0.01).

The serum IL2R of the patients according to PASI (table 4):

In PASI score less than 40, the serum IL2R level was 887.8± 411.7 u/ml and in PASI score more than 40, the serum IL2R level was 2298.7 ± 1193.7 u/ml. There was significant difference in the serum IL2R in the two PASI score (P < 0.01).

The correlation of age and serum IL2R among the patients (table 5):

There was no significant correlation between the age in years of the patients and the serum level of IL2R r = +0.290 (P>0.05).

The correlation of sex and serum IL2R among the patients (table 5):

There was no significant correlation between the sex of the patients and the serum level of IL2R r = - 0.040 (P > 0.05).

The correlation of duration and serum IL2R among the patients (table 5):

There was a positive significant correlation between the duration of disease and the serum level of IL2R r = +0.387 (P<0.05).

The correlation bewteen the PASI score and the age (table 6):

There was no significant correlation between the age of the psoriatic patients and their PASI score.

The correlation bewteen the PASI score and the sex (table 6):

It was found also, no significant correlation between the PASI score and the sex of the psoriatic patients.

The correlation between the duration illness of the disease and PASI score (table 6):

There was a positive significant correlation $r=+0.337$ ($P<0.05$) between the PASI score and the duration of the psoriatic disease.

The correlation bewteen the PASI score and serum IL-2 receptor (table 6):

There was significant positive correlation $r = +0.755$ ($P < 0.01$) between the serum level of IL-2R of the psoriatic patients and their PASI score.

Table (1) : Distribution of the studied patients according to PASI

Distribution PASI	No.	%
< 40	23	76.7
40 or more	7	23.3
Total	30	100.0

$X = 28.3 \pm 15.5$

Table (2) : Mean ± SD and range of illness duration among the studied patients according to PASI

Duration illness in years	X±SD	Range years	
PASI		Minimum	Maximum
< 40 (n = 23)	2.8±2.8	0.1	10.0
40 or more (n = 7)	8.1±7.3	0.5	20.0
t	2.872		
p	<0.05		

Table (3) : Comparison between the studied group regarding S. IL2R

S.IL2R / St. group	X±SD u/ml	Range u/ml	
		Minimum	Maximum
Patients	1247.9±867.8	318.0	3881.6
Controls	111.9±32.4	77.5	202.0
t	5.831		
p	<0.01		

Table (4) : Mean ± SD and range of S.IL-2R among the studied patients according to PASI

S. LI-2R / PASI	X±SD u/ml	Range u/ml	
		Minimum	Maximum
< 40 (n = 23)	887.8±411.7	318.4	1683.5
40 or more (n = 7)	2298.7±1193.7	1093.8	3881.6
t	4.935		
p	<0.01		

Table (5) : Correlation coefficients (r) and probability value (p) of the variables related to SIL6-2R among the studied patients.

Variables	SIL6-2R	
	r	p
Age (years)	+0.290	> 0.05
Sex	-0.040	> 0.05
Duration of illness	+0.378	< 0.05
PASI	+0.755	< 0.01

Table (6) : Correlation coefficients (r) and probability value (p) of the variables related to PASI among the studied patients.

Variables	SIL6-2R	
	r	p
Age (years)	+0.071	> 0.05
Sex	-0.033	> 0.05
Duration of illness	+0.337	< 0.05
S. IL-6-2R	+0.755	< 0.01

Table (7) : Site of CD3 (Pant T) cellular infiltrate

Site of infiltrate	Dermis						Dermoepidermis					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Intensity of infiltrate	+		++		+++		+		++		+++	
Patients n = 30	0	0.0	18	60.0	12	40.0	0	0.0	19	63.3	11	36.7
Control n = 5	5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Z	5.916		2.485		1.745				2.632		1.635	
P	<0.01		<0.05		>0.05				<0.05		>0.01	

Table (8) : Site of CD4 cellular infiltrate

Site of infiltrate	Dermis						Dermoepidermis					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Intensity of infiltrate	+		++		+++		+		++		+++	
Patients n = 30	0	0.0	18	60.0	12	40.0	0	0.0	17	56.6	13	43.4
Control n = 5	4	80.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Z	5.205		2.485		1.745				2.347		1.967	
P	<0.01		<0.05		>0.05				<0.05		<0.05	

Table (9) : Site of CD8 cellular infiltrate

Site of infiltrate	Dermis						Dermoepidermis					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Intensity of infiltrate	+		++		+++		+		++		+++	
Patients n = 30	29	96.6	1	3.4	0	0.0	29	96.6	1	3.4	0	0.0
Control n = 5	2	40.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Z	3.687		0.414				5.310					
P	<0.05		>0.05				<0.01					

Fig. (1): Shows parakeratosis with scattered neutrophils. Granular cell layer is inconspicious. The dermal papillae shows edema with mixed inflammatory cells. Also elongated rete ridges show thin upper portions with broad clubbed lower portions (H & E x 160).

Fig. (2): Shows elongated rete ridges with wide lower portion. Dermal papillae show edema with thin suprapapillary portion. Layers of parakeratotic cells are seen (H & E x 100).

Fig. (3): Shows active psoriasis with marked thining of suprapapillary portions of stratum malpighii and abscent granular cell layer. Dermal papillae show edema with moderate inflammatory cells. Clubbed lower parts of rete ridges is prominent (H & E x 160).

Fig. (4): Shows active psoriasis with elongation of rete ridges and elongated edematous dermal papillae. Note thickening of lower portions of rete ridges (H & E x 100).

Fig. (5): Show active psoriasis with edema & congested capillaries are seen extending into lower epidermis. Note thin upper part of rete ridge and wide lower part (H & E x 400).

Fig. (6): Shows active psoriasis with oedema, congested vessels & inflammatory cells. The suprapapillary portion of epidermis is thin with absent granular cell layer (H & E x 400).

Fig. (7): Shows lower epidesmis and upper dermis with many positive cells staining for Pan-T mainly in the papillary and upper dermis around vascular spaces. (Immunostaining x 160).

Fig. (8): Shows a case of active psoriasis with perivascular positive CD4 cells with intense cytoplasmic staining. Scattered cells are diffusely seen within the dermis. (Immunostaining x 160).

Fig. (9): Shows part of epidermis of a case of active psoriasis with positive cells stained for CD4 arranged in perivascular pattern around hair follicles and in the upper dermis (immunostaining x 160).

Fig. (10): A case of active psoriasis showing upper dermal diffuse positive CD4 cells mainly in perivascular manner (immunostaining x 160).

Fig. (11): Show part of epidermis and upper dermis in a case of psoriasis with positive CD8 cells both in upper and papillary dermis mainly in perivascular pattern. (Immunostaining x 160).