RESULTS

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This study was carried out on 50 patients suffering from seborrhoeic dermatitis , (14) males and (36) females , their ages ranged from 14-57 years .

Table (2) : Age and sex incidence of studied cases .

Age in years	Number of cases	%	Males		Females	
			No.	%	No.	%
10 -	10	20	4	40	6	60
20 -	18	36	5	27.7	13	72.2
30 -	14	28	3	21.4	11	78.5
40 -	4	8	2	50	2	50
50 -	4	8	–	–	4	100
Total	50	100	14	28	36	72

Table (2) illustrates that the rate of studied female cases were higher (72%) , than the rate of male cases (28%) . It is clear that the highest rate of seborrhoeic dermatitis (36%) was in the age group between 20 - 30 years old , while the lowest rate was in the age group between 40 - 50 years old (8%) and also over 50 years old (8%) .

Table (3) Age comparison between patients and controls .

	Patients	Controls .
Number	50	20
Range of age	14 - 57	14 - 56
Arthmatic mean	30.32	30.55
Standard deviation	10.35	11.6

t . test = 0.0 82

P. test = > 0.05 (non significant) .

From table (3) we notice that there were no statistically significant difference between the range of age between controls and patients .

I - Mycological results

Table (4) Shows the results of direct microscopic examination with KOH preparation and culture on glucose , neopepton yeast extract agar medium containing olive oil , Tween , and glycerol monostearate in 50 clinically suspected cases .

	Positive		Negative	
	Number of cases	%	Number of cases	%
- Microscopic examination of the specimen	36	72	14	28
- Culture	27	54	23	46

As shown from table (4) , by direct microscopic examination 36 cases (72%) were positive and 14 cases (28%) were negative , and by culture on the specific medium 27 cases (54%) were positive,while 23 cases (46%) were negative .

Table (5) Direct microscopic examination versus culture findings in 50 clinically suspected cases .

Total number of clinical cases	+ve direct examination in KOH preparation						-ve direct examination in KOH preparation					
	Culture of pityrosporum ovale				Total		Culture of pityrosporum ovale				Total	
	+Ve		-Ve				+Ve		-Ve			
50	Number of cases	%	Number of cases	%	Number of cases	%	Number of cases	%	Number of cases	%	Number of cases	%
	27	75	9	25	36	72	-	-	14	100	14	28

As shown from table (5) direct microscopic examination of the scales was done in 50 , clinically suspected cases to prove the presence of fungal elements and identify the causative organism pityrosporum ovale , and to compare the results obtained by microscopic examination with that obtained by culture .

It was found that out of (36) cases that showed fungal elements in KOH preparation , only (27) cases were positive in culture (75%) , while from (14) cases that were negative in direct microscopic examination ,no+ve culture findings were obtained .

Direct microscopic examination of specimens with KOH preparation :

The preparation of specimens shows a cluster of globose budding cells (up to 8μm) and short , curved branching hyphae (up to 4μ m) in diameter . Hyphae are abundant in untreated cases . (figure 5) .

Culture of pityrosporum ovale :

Culturing pityrosporum ovale is more complicated than the procedures for most of the yeast - like fungi ; it grows extremely poorly or shows no growth at all on ordinary mycological media without the addition of oil . (Rippon , 1982) .The colonies produced on sabouraud's agar with olive oil are white to creamy in color and dry in texture (figure 6) . The size of the cell varies from 3 up to 7μ m in diameter , some short hyphae may be formed under certain conditions of growth (Figure 7) . The culture growth is visible after about 10 days .

Figure (5) Direct microscopic examination with KOH preparation

Figure (6) Culture of pityrosporum ovale .

Figure (7) Microscopic examination of of pityrosporum ovale colonies with lacto-phenol cotton blue stain .

II - Immunological Results

This study aimed at evaluating the degree of cell - mediated immunity (C MI) in patients with seborrhoeic dermatitis . T - lymphocytes were separated as described befor and counted by E . Rosette methed . (figure 8) . Lymphocyte blast transformation using phytohaemagglutinin (PHA) as a mitogen has been used to evaluate cell - mediated immunity in patients with seborrhoeic dermatitis (figure 9) .

Both tests were carried out on both studied groups (i.e cases group which include 50 patients complained of seborrhoeic dermatitis and control group which include 20 normal subjects free from any dermatological disorders) .

Figure (8) E . Rosette method .

Figure (9) Lymphocyte blast transformation .

Table (6) Statistical analysis of E . Rosette % for both groups (Patients and Controls) .

	Number	Range of value	Arthmatic mean	Standard deviation	t.	p.
Patients	50	20 - 55	34.56	± 8.56	8.24	<0.001
Controls	20	42 - 74	57.9	±11.43		

Table (6) shows a comparison of E . Rosette results between patients and controls . It shows that the heighest value of E . Rosette% in the patients group was 55%, while the heighest value in the control group was 74%, and the lowest value of E . Rosette % in the patients group was 20% while the lowest value of E . Rosette% in the control group was 42% . It is also shown that there was a very highly significant difference between both groups .

Table (7) E . Rosette% results in males versus females for both groups (Patients and controls) .

Sex	Number	Patients Arthmatic mean ± Standard deviation	Number	Controls Arthmatic mean ± Standard deviation	t.	p.
Males	14	34.14 ± 5.69	5	68.0 ± 9.54	7.475	<0.001
Females	36	34.72 ± 9.51	15	54.53 ± 10.13	6.474	<0.001
t = 0.265 p > 0.05			t = 2.606 p > 0.05			

Table (7) shows a comparison between E . Rosette% results between males and females for both groups(Patients and controls.) . It shows that there was no statistical significant difference between male and female patients , and no significant difference between males and females of the control group , but there was ahighly significant difference between males in both groups and a highly significant difference between females in both groups .

Table (8) Lymphocyte blast transformation test in the two studied groups .

	Number	Range of value	Arthmatic mean	Standard deviation	t.	p.
Patients	50	17 - 52	37.44	± 4.39	7.569	<0.001
Controls	20	40 -72	57.5	±10.252		

Table (8) Shows a comparison of lymphocyte blast transformation test between patients and controls . It shows that the heighest value of lymphocyte blast transformation in patients was 52% while the heighest value in the control group was 72% . The lowest value in patients was 17% while the lowest value in the control group was 40% . It is also shown that there was a very highly significant difference between both groups

Table (9) Lymphocyte blast transformation% in males versus females for both groups (patients and controls) .

Sex	Patients			controls			t.	p.
	Number of cases	Arthmatic mean ± Standard deviation		Number	Arthmatic mean ± Standard deviation			
Males	14	39.43 ± 6.32		5	64.0 ± 4.929		11.27	<0.001
Females	36	36.67 ± 10.52		15	53.47 ± 8.12		6.154	<0.001
t = 1.222 p > 0.05				t = 4.148 p < 0.01				

This table reveals that the results of lymphocyte blast transformation % is of no significant difference statistically between males and females in patients group , while it is statistically shows sifnificant difference between males and females of the controls group . The table shows a very highly significant difference between males in both groups , also a very highly significant difference between females in both groups .

Table (10) E.Rosette% , lymphocyte blast transformation% versus direct microscopic examination of the scale specimens .

Direct microscopic examination of the specimen	Number of cases	E . Rosette		Blast transformation	
		Arthmatic mean	Standard deviation	Arthmatic mean	Standard deviation
+ Ve	36	42.14	± 6.83	43.86	± 5.86
_Ve	14	31.67	± 7.37	34.94	± 7.09
t. p.		4.602 < 0.001		4.186 < 0.001	

As shown from table (10) there were a very highly statistical significant difference between the results of both immunological tests and the results of direct microscopic examination of the scale specimen .

Table (11) E .Rosette% , lymphocyte blast transformation% versus fungal cultures .

Culture results	Number of cases	E . Rosette		Blast transformation	
		Arthmatic mean	Standard deviation	Arthmatic mean	Standard deviation
+ Ve	27	29.57	± 6.63	32.57	± 9.21
_Ve	23	40.91	± 6.26	43.64	± 4.46
t. p.		6.197 < 0.001		5.434 < 0.001	

As shown from table (11) there were a very highly statistical significant difference between the results of both immunological tests and the results of fungal culture .

Table (12) (E. Rosette and lymphocyte blast transformation versus) the onset of the disease .

The onset of the disease	E. Rosette test				Lymphocyte blast transformation			
	Number	Arthmatic mean ± standard deviation	t .	p.	Number	Arthmatic mean ± standard deviation	t .	p.
Less than one month	16	34 . 86 ± 9.08	0.356	>0.05		37 . 75 ± 10.77	0.435	>0.05
From one month to 6 months	22	35.42 ± 6.69	0.227	>0.05		38.91 ± 7.55	0.341	>0.05
More than 6 months	12	32.5 ± 11.05	0.624	>0.05		34.33 ± 10.508	0.839	>0.05

Table (12) shows no statistically significant difference between the results of both immunological tests (E . Rosette and the lymphocyte blast transformation) and the onset of the disease .

Table (13) The relation between receiving previous antifungal treatement by the patients and E.Rosette% results and lymphocyte blast transformation% results .

Previous treatement	Number of cases	E . Rosette %	Blast transformation
		Arthmatic mean + - Standard deviation	Arthmatic mean + - Standard deviation
+ Ve	44	34.1 ± 8.95	36.64 ± 9.56
-Ve	6	38.0 ± 3.58	43.33 ± 5.47
t. p.		1.0502 > 0.05	1.669 > 0.05

Table (13) shows the relation between E . Rosette% results and the lymphocyte blast transformation% results according to receiving previous antifungal drugs by the patients . From table (13) we notice that there were no statistically significant difference between the results of both tests and receiving previous antifungal treatement .

Table (14) The relation between recurrance of the disease and E . Rosette% results , lymphocyte blast transformation .

Recurrance of the disease	Number of cases	E . Rosette		Blast transformation	
		Arthmatic mean	Standard deviation	Arthmatic mean	Standard deviation
+ Ve	34	33.63	8.98	36.1	9.92
-Ve	16	36.73	7.3	40.6	7.36
t. p.		1.1797 > 0.05		0.9014 > 0.05	

Table (14) shows the relation between E . Rosette% results , lymphocyte blast transformation and the recurrance of the disease . It can be noticed from table (14) that the results of both immunological tests were not affected by the recurrance of the disease in some patients , there is no statisical significant difference .

Table (15) Influence of working environment on seborrhoeic dermatitis .

Working environment	Number of patients	%	Male	%	Female	%
School (students)	8	16	2	25	6	75
House wife	16	32	-	-	16	100
Office	10	20	2	20	8	80
Factory	12	24	6	50	6	50
Farmers	4	8	4	100	-	-

As shown from table (15) seborrhoeic dermatitis was more frequent among house wife patients 16 cases (32%), while the minimun affection was among farmers 4 cases (8%) . In between these two extremities students were affeced (16%) but females affected more than males (75%) . Then we have workers in factories who were affected (24%) and males affected by the same percentage as females (50%) . Lastly we have officers who were affected by (20%) ,with females (80%) more than males (20%).

Table (16) Effect of seasonal variation on seborrhoeic dermatitis .

Seasonal variation	Number of patients	%
- Worse in winter	31	62
- Not affected by seasonal variation	19	38

As shown from table (16) A seasonal variation was experienced by 62% of the patients who had more sever skin problems in winter while the rest of patients 38% experienced no effect of seasonal variation on the severity of seborrhoeic dermatitis .

Table (17) Effect of family history of seborrhoeic dermatitis on the disease occurrence .

Family history of seborrhoeic dermatitis	Number of patients	%
-Ve	28	56
+Ve	22	44

As shown from table (17) there was a positive family history of seborrhoeic dermatitis in 22 patients (44%) while the other patients 28 (56%) answered that there was no family history of seborrhoeic dermatitis affection .