

RESULTS

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These study was carried out on thirty patients had lichen planus, out of thirty patients eighteen patients were negative for both HCV antibody in serum and HCV antigen in the skin by immunoperoxidase staining for detection of HCV antigen.

The remaining twelve patients were positive for HCV antibody in serum, out of twelve patients ten patients were positive for HCV antigen in the skin, while the remaining two patients were negative in the skin for HCV antigen.

Table (2): Control tissues; results of immunoperoxidase staining

Type of the tissues	Numbers	Immunoperoxidase staining
• Hepatitis C-infected hepatic tissue	2	+ve
• Normal hepatic tissue	2	-ve
• Normal human skin	1	-ve
• Cutaneous biopsies of lichen planus from persons known to be infected with hepatitis C	2	+ve

Table (3): Description of the patients with lichen planus included in the present study and result of investigation that was carried out on them

Patients No.	Age (year)	Sex	Sites of lichen planus lesions	Oral lesions	Associated diseases	Investigations	
						HCV-Ab in serum	Immunoperoxidase staining*
1	35	M	Extensor of legs, flexor of arms, lower lip	+ve reticular	-	+ve	+ve
2	48	F	Flexor of arms, back of hands	-ve	kidney trouble (Dysuria, back pain)	-ve	-ve
3	52	F	Legs, thighs, lower back, flexor of arms	-ve	-	-ve	-ve
4	42	F	Flexor of arms, trunk, legs	-ve	-	+ve	+ve
5	45	F	Legs, trunk	+ve reticular	hypertension	+ve	+ve
6	18	M	Face	-ve	-	-ve	-ve
7	15	M	Flexors of arms, feet, legs	-ve	-	-ve	-ve
8	59	M	Back, flexor of arms	+ve reticular	-	+ve	+ve
9	48	M	Back of hands, wrists, flexor of arms	-ve	-	-ve	-ve
10	55	F	Flexor of arms, back of hands	-ve	-	-ve	-ve

* Immunoperoxidase staining for HCV-Ag in tissues

Cont. Table (3): Description of the patients with lichen planus included in the present study and result of investigation that was carried out on them

Patients No.	Age (year)	Sex	Sites of lichen planus lesions	Oral lesions	Associated diseases	Investigations	
						HCV-Ab in serum	Immunoperoxidase staining*
11	54	F	Extensor of legs, dorsum of hands, flexor of arm, lower lip	+ve erosive	-	+ve	+ve
12	60	F	Flexor of arms, wrists, lips	+ve erosive	menial disturbance (one year ago)	+ve	+ve
13	40	F	Face, dorsum of the hands	-ve	-	-ve	-ve
14	37	F	Back, thighs	+ve reticular	hypertension	+ve	+ve
15	35	F	Trunk, dorsum of hands, legs	-ve	-	-ve	-ve
16	50	F	Lower back, legs	-ve	-	-ve	-ve
17	21	M	Face, both lips	+ve reticular	-	+ve	+ve
18	30	M	dorsum of hands, legs, flexor of arms	-ve	-	-ve	-ve
19	40	F	Trunk, extensor of legs	-ve	-	-ve	-ve
20	70	M	Scalp, trunk	-ve	-	+ve	+ve

* Immunoperoxidase staining for HCV-Ag in tissues.

Cont. Table (3): Description of the patients with lichen planus included in the present study and result of investigation that was carried out on them

Patients No.	Age (year)	Sex	Sites of lichen planus lesions	Oral lesions	Associated diseases	Investigations	
						HCV-Ab in serum	Immunoperoxidase staining*
21	35	F	Extensor of legs, back of hands	-ve	-	-ve	-ve
22	35	F	Trunk, flexor of arms, extensor of legs, lower lip	+ve erosive	-	+ve	+ve
23	35	F	Trunk, dorsum of hands, flexor of arms	-ve	-	+ve	-ve
24	70	F	Back of hands, wrists	-ve	-	-ve	-ve
25	40	M	Flexor of arms	-ve	-	-ve	-ve
26	65	M	Abdomen, extensor of legs	-ve	-	-ve	-ve
27	28	F	Abdomen, flexor of arms	-ve	-	+ve	-ve
28	35	M	Back of hands, wrists, flexor of arms	-ve	-	-ve	-ve
29	42	F	Abdomen, lower back	-ve	-	-ve	-ve
30	38	F	Flexor of arms, hands	-ve	-	-ve	-ve

* Immunoperoxidase staining for HCV-Ag in tissues.

Table (4): Comparison between Lichen planus cases with hepatitis C virus skin positive versus cases with skin negative regarding age group and sex

Variables	Cases				Total	X ²	P	
	Skin +ve hepatitis C		Skin -ve hepatitis C					
Age group (ys):	No.	%	No.	%	No.	%	0.02	>0.05
< 40	5	35.7	9	64.3	14	46.7		
≥ 40	5	31.3	11	68.7	16	53.3		
Sex:							0.02	>0.05
Male	4	36.4	7	63.6	11	36.7		
Female	6	31.5	13	68.5	19	63.3		
Total	10	33.3	20	66.7	30	100		

There was no significant difference ($P>0.05$) between different age and sex groups regarding positivity of skin for hepatitis C antigen among cases of Lichen planus.

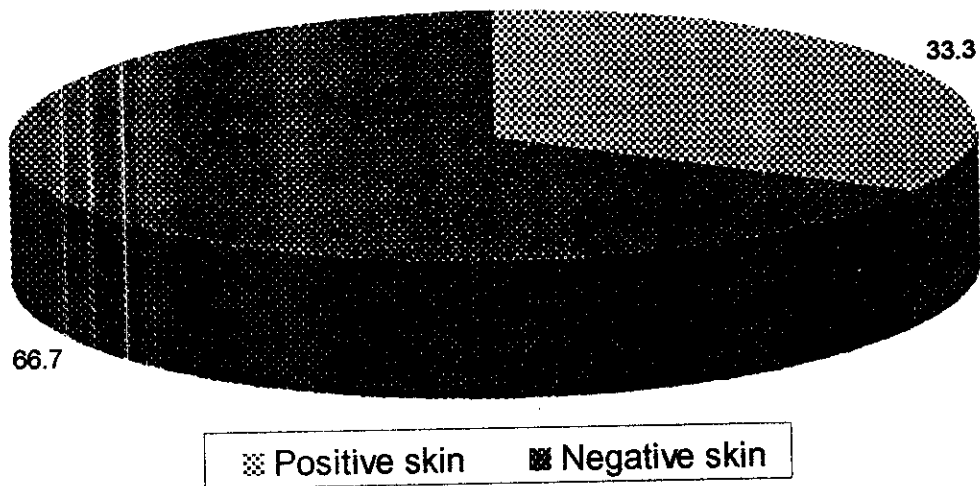


Figure (10): Number and percentage of cases with hepatitis C virus antigen positive skin (10 cases) among cases of LP (30 cases)

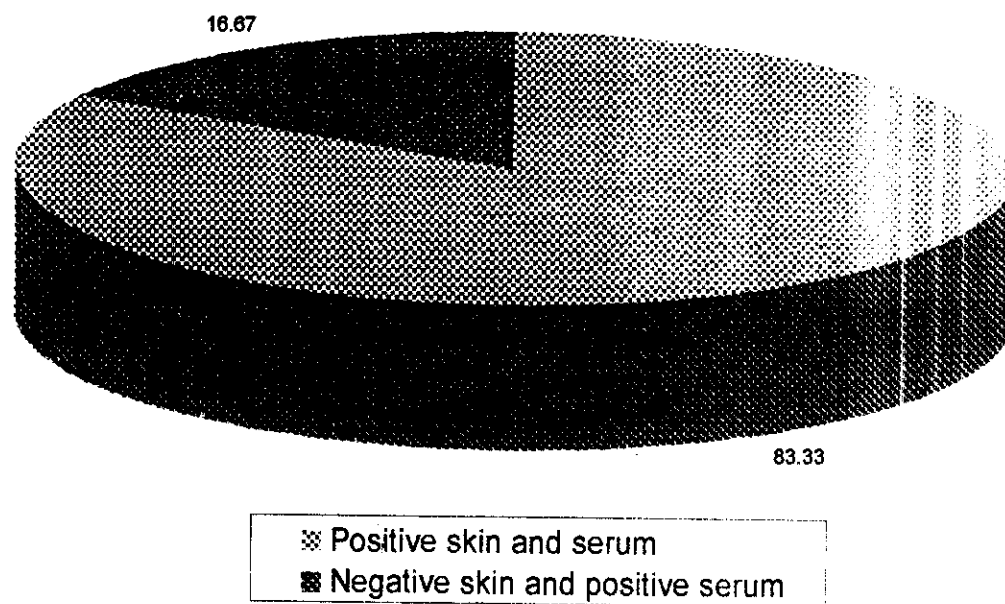


Figure (11): Number and percentage of hepatitis C virus antigen positive skin cases (10 cases) among cases of LP with positive serum hepatitis C virus (12 cases)

Table (5): Distribution of different pathological types of Lichen planus according to positivity of hepatitis C virus skin antigen

Pathological Types	Cases				Total	
	Skin +ve hepatitis C		Skin -ve hepatitis C			
	No.	%	No.	%	No.	%
Classic	1	5.8	16	94.2	17	100
Actinic	1	33.3	2	66.7	3	100
Oral	8	80	2	20	10	100
Total	10	33.3	20	66.7	30	100

$$X^2 = 15.56$$

$$P < 0.0001$$

Highly significant difference between different pathological types of lichen planus regarding presence of hepatitis C positive skin. The majority of classic cases (94.2%) were negative hepatitis C skin antigen while the majority of oral cases (80%) were positive hepatitis C skin antigen ($P < 0.0001$).

Table (6): Validity of oral site Lichen planus in prediction of tissue hepatitis C virus positive

Lichen planus	Cases				Total	
	Skin +ve hepatitis C		Skin -ve hepatitis C			
	No.	%	No.	%	No.	%
Oral	8	80	2	20	10	100
Non-oral	2	10	18	90	20	100
Total	10	33.3	20	66.7	30	100

$$X^2 = 11.72$$

$$P < 0.0001$$

Significant difference between oral and non-oral LP regarding skin positivity for HCV. The majority of oral type (80%) was skin positive for HCV and non-oral type (90%) was skin negative for HCV.

Table (7): Validity of actinic type Lichen planus in prediction of skin positive hepatitis C virus

Lichen planus	Cases				Total	
	Skin +ve hepatitis C		Skin -ve hepatitis C			
	No.	%	No.	%	No.	%
Actinic	1	33.3	2	66.7	3	100
Non-actinic	9	33.3	18	66.7	27	100
Total	10	33.3	20	66.7	30	100

$$X^2 = 0.42$$

$$P > 0.05$$

No significant difference between actinic and non-actinic LP regarding skin positivity for HCV.

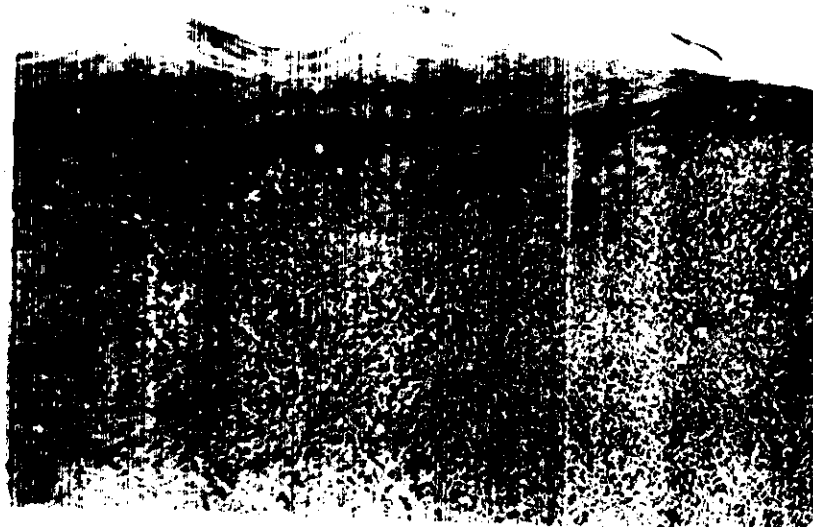


Fig. (12): Lichen planus, early lesion, showing hyperkeratosis, focal thickening of the granular layer, acanthosis with irregular elongation of the rete ridges and the basal layer invaded by inflammatory infiltrate (H & E, x40)

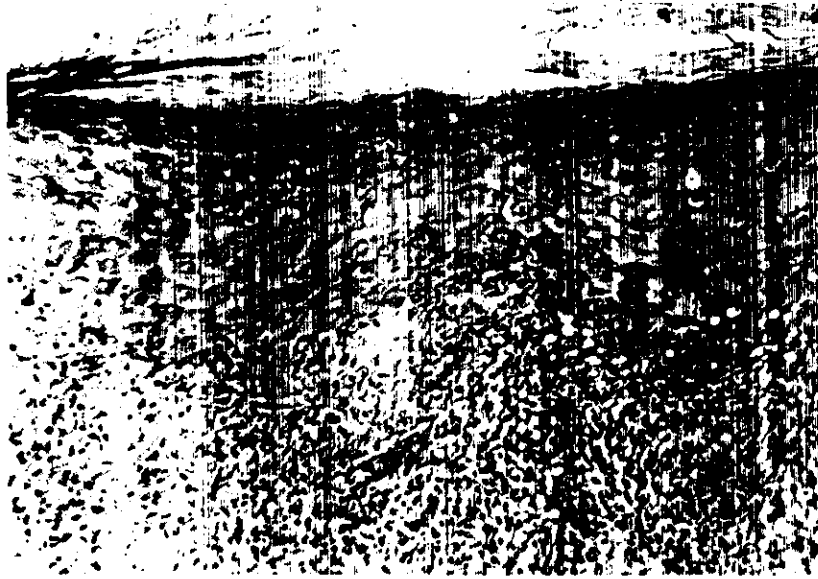


Fig. (13): Lichen planus, early lesion, higher power view of previous case (H & E, x100)

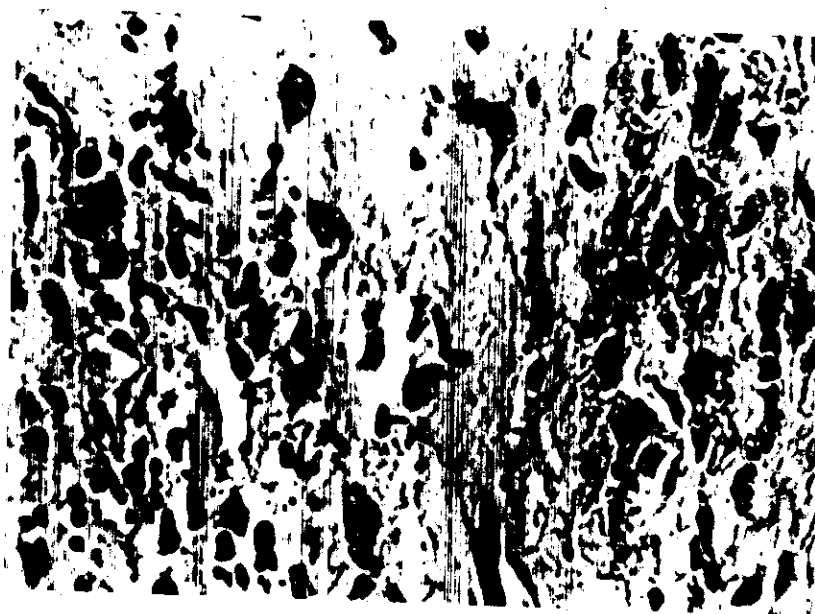


Fig. (14): Lichen planus, showing intense granular cytoplasmic staining of histiocytes to hepatitis C virus antibodies (Immunoperoxidase, x400)

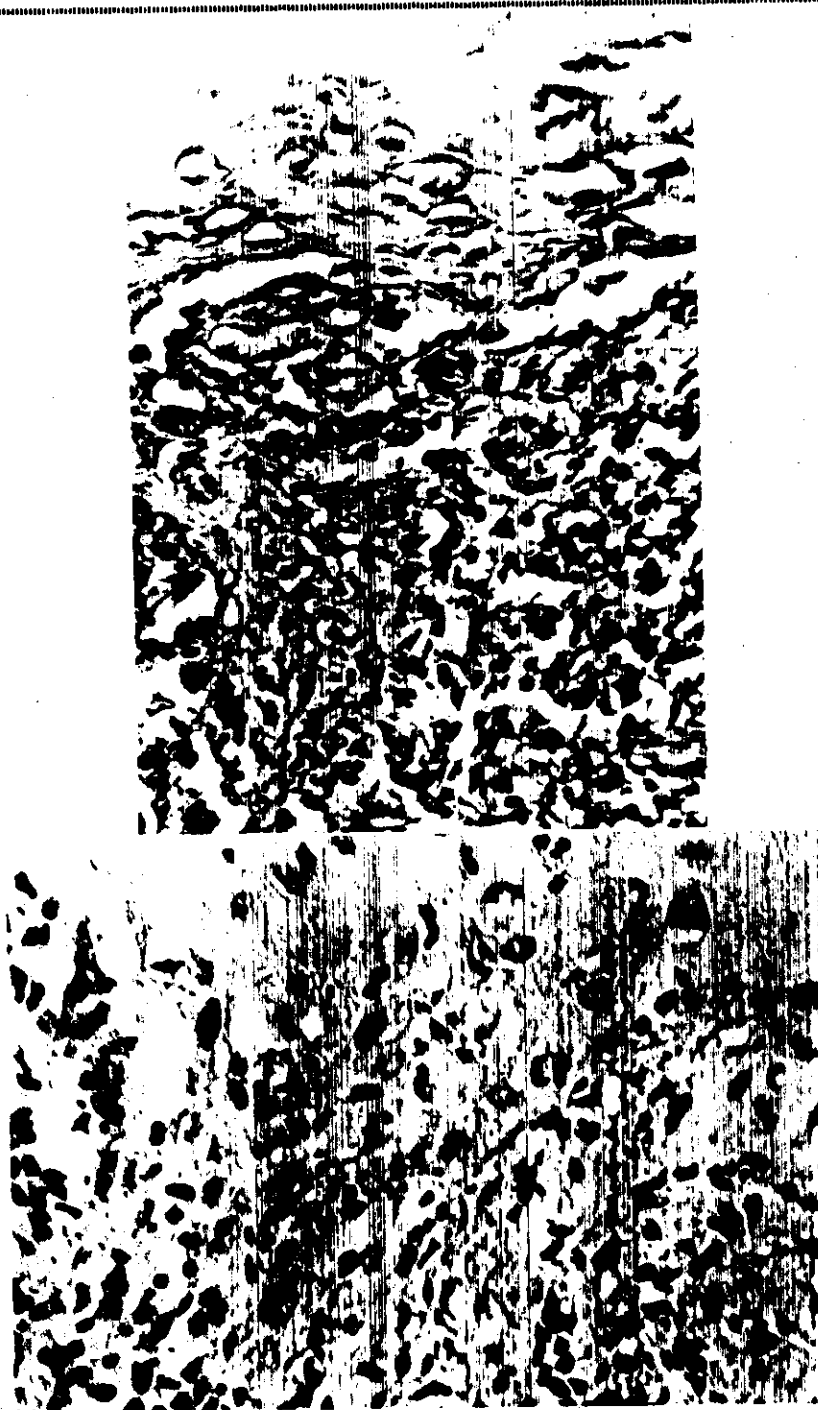


Fig. (15): Lichen planus, showing moderate granular cytoplasmic staining of histiocytes to hepatitis C virus antibodies (Immunoperoxidase, x250)



Fig. (16): Lichen planus, actinic type, showing remarkable hyperkeratosis and papillomatosis with dermal inflammatory infiltrate (H & E, x100)

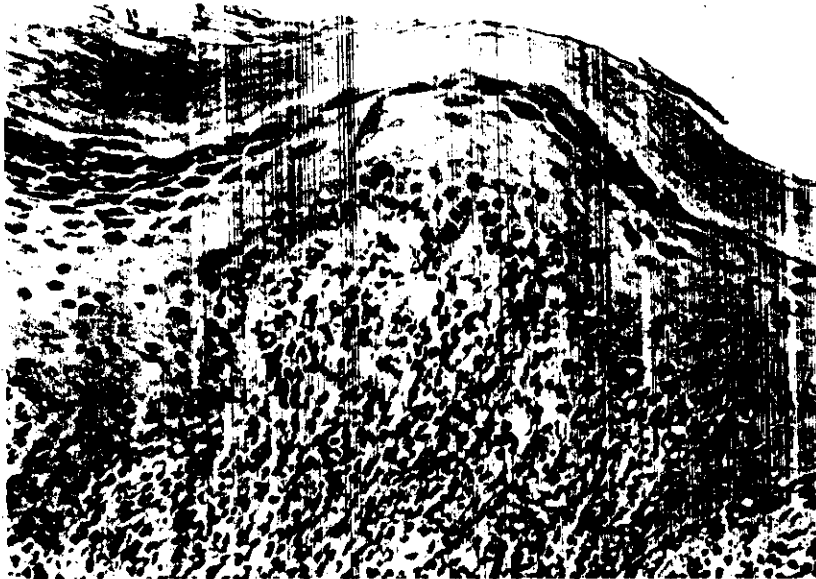


Fig. (17): Lichen planus, actinic type, showing remarkable hyperkeratosis and thinning of the dermis in the center of the lesion with scattered histiocytes in the dermal infiltrate showing reactivity to hepatitis C virus antibodies (Immunoperoxidase, x100)

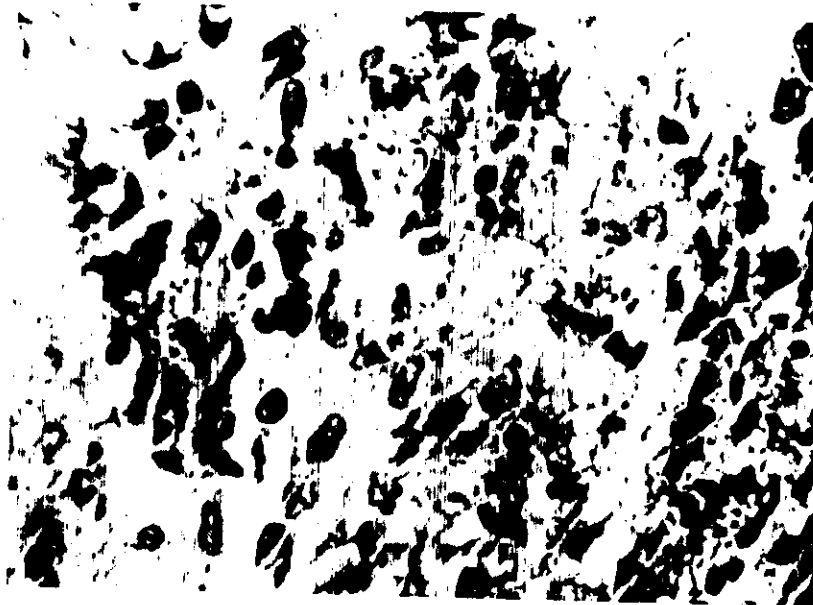


Fig. (18): Lichen planus, actinic type, showing granular cytoplasmic immunoreactivity to hepatitis C virus antibodies in histiocytes (Immunoperoxidase, x400)