

L I C H E N P L A N U S

and its varieties.

by

A. B. S L A T E R,

M.B., Ch.B., Edin.; L.R.C.P., Lond; M.R.C.S., Eng.

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I n t r o d u c t o r y.

The word is derived from the Greek $\lambda \epsilon \iota \chi \eta \nu$
= a lichen, and is used, no doubt, on account of the
disease resembling to a very small extent, the plant
growing on a tree, or wall.

The photographs, drawings of microscope slide,
and any original observations in this thesis, are
the result of the personal study, and in most cases,
entire treatment of 40 cases (through the courtesy
of Dr M. K. Hargreaves, whose clinical assistant
the writer was for two years at the St. John's Hosp-
ital, Leicester Square).

The photographs are original and the drawing from an actual section.

E t i o l o g y.

Lichen is an uncommon disease in general practice, and forms not more than 1% of cases in a special hospital for skin diseases, such as that mentioned. There are many named varieties, viz.

1. Lichen ruber planus.
2. Lichen ruber obtusus.
3. L.R. obtusus corneatus.
4. L.R. acuminatus neuroticus
5. L.R. planus corneatus or lichen hyperkeratosis
6. R.P. planus atrophicus
7. L.moniliformis.

The most common form and most typical is lichen ruber planus, and this will be described first.

The disease may be acute or chronic. The commonest age appeared to be from 40-60, but below 30 it is rare, only two of the 40 cases were in patients

below that age, one a man of 19 and the other a woman of 22.

The disease is much more common in women than in men, the proportion being 5 women to 1 man in these 40 cases.

In 65% there was a distinct history of long continuance of debility or "worry" in the patients, the general health being much below par, in some cases for months, in others for a few weeks only. One woman stated that the disease came on a week after receiving a sudden mental shock (her husband had committed suicide).

On the other hand, in the other cases no definite history of debility could be obtained, but some of the cases may be accounted for, by want of proper food, my reason for this statement being, that on looking up the record of cases since 1898, I find that lichen has been more in evidence at St. John's

Hospital during the last two years than in the preceding years, and these two years have been years of great distress among the people, owing to bad trade and consequent loss of work.

It is, however, a disease not confined to the poor, as the wealthy classes are victims also, the cause here may be, again, debility caused by worry, or continuous living at high pressure.

Young children may have lichen planus, but it is a very rare disease in children, the writer having seen only one typical case in a child.

S y m p t o m s .

Chronic Form:

The disease begins insidiously with persistent itching of the skin, before any papules appear, but very soon, in a day or two, they appear.

The commonest site for their first appearance

is on the front of the wrist and forearm, other places in order of frequency are the inner side of the thigh just above the knee (sometimes first to appear), then below knee, and ankle, lower part of abdomen and flanks, and round the waist (in women). If the patient has been scratching, there may appear 8 or 10 papules in the line of the scratch sometimes.

It may occur on the mucous membrane of the mouth or vulva, but rarely attacks either the face or scalp.

The papules vary in size from less than $1/16$ th of an inch to $3/16$ ths., but there may be an amalgamation of many papules, forming a patch sometimes several inches across, after the manner of confluent small-pox. These patches are, however, not found in the earlier stages of the disease.

The individual papules are raised, circumscribed areas, resembling a small table mountain, and having

a smooth shiny surface, the centre of which may be seen in some cases, with a lens, to be depressed slightly. At first the papules are bright red and quite distinct from each other, the skin intervening being usually normal in appearance. A waxy appearance is given to the papules by the shiny surface, which is very characteristic of the disease.

Course of the Disease.

In about 10 days or a fortnight the papules assume a little darker colour, and in a month or six weeks have become a characteristic purple or violet colour, which may persist for months or even a year or more in the more chronic cases.

When the papules begin to fade they assume a bronze colour - which may either clear up and leave no trace on the skin, or may leave a brown discolouration which may even be permanent.

Another thing which may take place is that the condition may become one of lichen hypertrophica, the papules being very much thickened and raised, and assuming a most intractable state of affairs.

D u r a t i o n .

The disease in its various stages may exist from three months to as many years, but the average duration of the cases mentioned was about eight months, the acute cases being usually a little longer before entirely disappearing, although responding more readily to treatment at first.

Acute Form:

Resembles the chronic form in many respects, but is characterised by a larger number of papules which may spread over the entire trunk and limbs, giving a lobster-like appearance to the patient.

The rash, however, rarely appears all at once,

usually appearing in the order of the chronic form viz. wrists, &c. but spreading in successive out-crops almost every day.

The acute form may be a very serious disease - the constant and distracting itching preventing any rest during the night and allowing very little during the day. Death has taken place in some recorded cases from asthenia or complications following the acute inflammatory condition into which the skin gets, in the severe forms of the acute disease.

The course of the acute form resembles that of the chronic form, except that in the early stages, the red papules seem to become purple a little sooner under treatment.

The pathology appears to be the same.

Pathology.

A vertical section through a papule shows a large amount of small celled infiltration under the rete mucosum, causing a raising up of all structures lying above it, and so forming what I have described as a small table-mountain. Usually the vessel from which the small leucocytes have exuded, is visible under the mass of cells and often sweat ducts may be seen running through the mass, the sweat gland itself however usually lies below the mass, and is very rarely embedded in it.

Hair follicles do not usually lie in the mass, but on the periphery of a papule.

The cuticle is thickened on the top of a papule, and sometimes a plug of thickened cuticle is seen on the top of a papule. In other cases there may be a small depression, the cause of this being doubt-

ful, but the most natural theory is that it is caused by the plug becoming detached (Crocker); the theory put forward by another writer (Biesisdicki) is that it is caused by the contraction of the erector pilaris muscles. This, however, does not seem to correspond with the fact that the hair follicles as a rule lie outside the papule, or at the extreme edge.

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T r e a t m e n t .

First improve the general health by nourishing foods, avoiding those things which are liable to cause urticaria, such as shell-fish, cheese, and highly spiced foods.

The bowels should be kept open by cascara or magnesia citrate, or the pill composed of aloin gr.15d, strychnine Sulph. gr. 1/60, and ext.belladonna gr.1/8., all of which remedies keep the bowels regular without producing the depression which sometimes follows magnesium sulphate or other drastic purgatives.

Change of air, and especially surroundings, if worry has caused the onset of the disease, is very important.

The internal treatment of lichen consists in the administration of arsenic - but it is doubtful

if any internal treatment has very much effect.

Jamieson gives $1/50$ gr. arsenious acid, gradually increased to $1/12$ th, or iron and arsenic may be given together. Arsenic, however, with some cases seemed to aggravate the condition, and idiosyncrasy must always be looked for in the administration of arsenic.

In very acute cases it may be necessary to keep the patient in bed and restrict the diet to a milk one. Also when the itching is so severe as to cause several nights of sleeplessness in succession, morphia or some other powerful hypnotic may be absolutely necessary to preserve the patient's strength. Quinine may be necessary in widely acute cases.

Aspirin gr.10-15 is a useful drug, and seems to have some beneficial effect, especially where there is much irritability. Liveing recommends hydrarg. perchlor. in doses of gr. $1/16$ internally.

The local treatment is the one which gives best results. Of the lotions used, *lot. calaminae* (consisting of native calamine 20 gr., oxide of zinc 20 grs., glycerin 30 min., *liq. calcis* 5 dr., water to an ounce) is very useful.

Creolin (half a teaspoonful to 10 gallons in hot bath) is very useful in allaying the itching, and the hot bath just before going to bed will often enable the patient to get to sleep, but the condition is aggravated if the proportion of creolin to water is more than the above.

Corrosive sublimate solution 1-2000 has been used, also lead lotion; and the latter is useful in allaying irritation, although it should not be continued very long, on account of absorption.

Jamieson recommends the following ointment:

| | |
|-------------------|-----------------|
| Acid carbol. | gr.15-30 |
| Hydrarg.perchlor. | gr.1-3 |
| Lanolin |) |
| Zinc oxide |) of each 2 dr. |
| Pulv.amyli |) |

and on many of the cases described this ointment had a good effect. Menthol soap, baths of sulphide of potassium, and camphor ointment are all recommended by Jamieson. Mercurial remedies are regarded by some writers, as almost specific. Brocq recommends Unna's mercurial plaster, to most affected parts. He also recommends unguentum calomel 1-20 or 1-10 and yellow oxide of mercury 1-30.

For the itching he uses lotion of corrosive sublimate 1-1000 applied hot, and also the following:

| | |
|---------------|-----------|
| Ac. carbol | 1 gram. |
| Ac. salicyl | 2 grams. |
| Tartaric acid | 3 grams. |
| Glycerole of | |
| Starch | 60 grams. |

Vidal believes glycerole of starch and tartaric acid to be specific.

In acute cases many of the above remedies cannot be tolerated, and in those cases emollients should be used, such as lanoline, or olive oil, or a mixture of lotio calaminae and oleum lini is very

soothing. In the case of very chronic plaques treatment should be on the same lines as for lichen hyperkeratos~~us~~ described later.

Varieties of Lichen

1. Lichen ruber obtusus:

Characterised by the papules being very waxy looking.

2. Lichen Ruber obtusus corneatus.

Large waxy papules usually remaining isolated, characterise this form. The tops of the papules are horny and look dull.

The disease is very slow, and intractable, and is treated on the same lines as lichen~~s~~ hyperkeratosus (q.v.)

3. Lichen Ruber acuminatus neuroticus:

Characterised by papules with heaped up scales round hair follicles.

The disease comes on after sweating and resembles pityriasis ruber pilaris, but is distinguished from that disease by its acuteness and general physical disturbance. It is usually easy to cure, by means of soothing ointments such as unguentum calaminae cum oleo lini, and baths as in acute lichen ruber planus, but it may lead to fatal results.

4. Corneous lichen ruber planus or Lichen hyperkeratosis.

Is almost always found on the legs, sometimes in large plaques.

The plaques are heaped up to the height of $\frac{1}{4}$ in. above the level of the skin in the worst cases, and are covered with scales. There are usually deep furrows in the plaques, and in the immediate vicinity may be found typical lichen ruber planus papules, which seem to indicate that the condition is a modification of that disease.

The colour of the plaques is always a dark purple, the scales however producing a greyish appearance on the surface.

They are very intractable and may exist for twenty years or more, but do not cause much inconvenience, apart from a varying amount of irritability.

The treatment is somewhat unsatisfactory, but in several cases, the writer has seen complete cures from the following ointment:

| | | |
|-------------------|----|---------|
| acidi salicylatis | X | gr.xxx. |
| acidi carbolii | c | gr.xxx. |
| Ung. simplex | ad | 3 i |

This is a powerful ointment, and no doubt acts by causing desquamation and removing the mass layer by layer.

In the case of one patient, whose condition is shown in photograph No. I many dermatologists at a society at which he was shown, advocated shaving off successive layers until the mass was removed

to the level of the skin, but this was not done, as the man improved very much, under severe ointments, and is now progressing favourably. He had had the disease over twenty years.

Internally arsenic seemed to have little effect, but when the external treatment is being used at the same time, it is difficult to say which causes the improvement.

Mercurial treatment externally seemed to have no effect on these cases, and it was only when such remedies as ung. ac. salicyl. and ac.carbol. were used that improvement began to occur.

5. Lichen ruber planus atrophicus:

A very rare disease, beginning like lichen ruber planus, but afterwards the papules flatten and leave white patches looking like punctiform depressions.

Histologically these spots show atrophy of papillae with sclerosis of derma and dilatation of sweat ducts. The treatment is the same as for lichen ruber planus.

6. Lichen ruber moniliformis (Kaposi)

In this form of the disease, the papules are arranged in longitudinal lines, fairly symmetrically.

The papules are larger in size than ordinary lichen planus papules, and resemble a string of coral beads or nodules of keloid.

It is a very rare disease, and is probably a modification of lichen ruber planus - perhaps due to scratching, as it is quite common to see lichen papules occurring in the line of a scratch.

The treatment is arsenic internally, and the same remedies as for lichen ruber planus may be used for external treatment.

L I T E R A T U R E.

In writing this thesis, the following works have been used for reference, particularly in regard to treatment:

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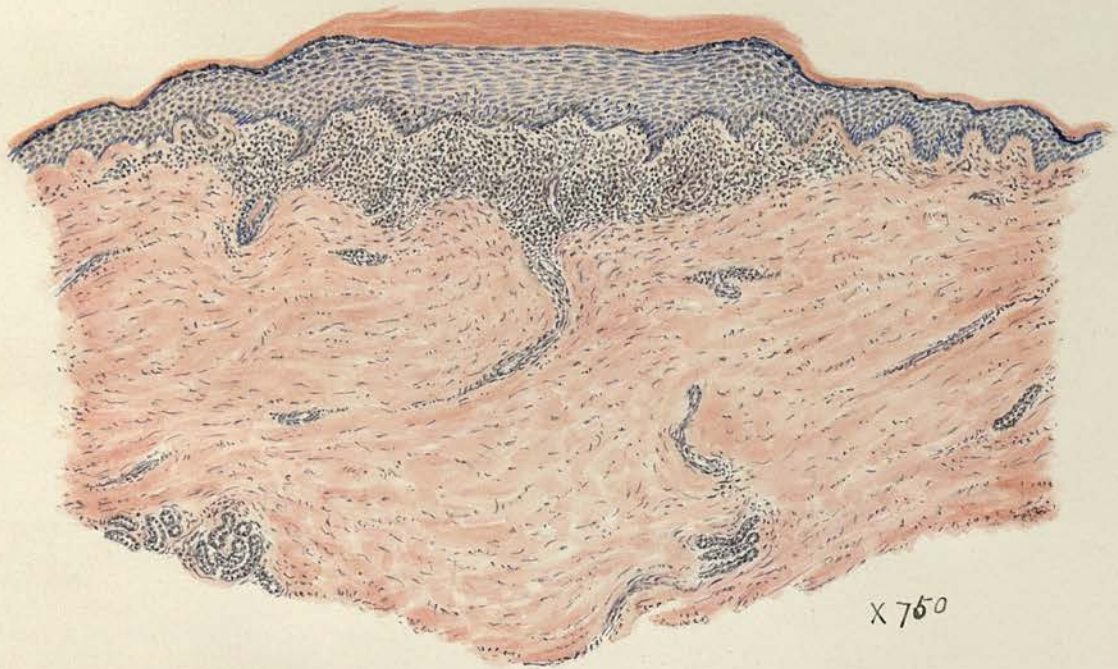
LICHEN . HYPERKERATOSUS



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