generally found, however, if it be going to do good in lupus erythematoses, that the first-named dose is sufficient. Those who are inclined to give it a trial, should take care of two things: first, that the cases they are dealing with are really undoubted ones of lupus erythematoses and not lupus vulgaris; and second, that the medicine is freshly prepared and in accordance with the directions above mentioned.

In conclusion, I may say that I have found the iodide of starch an excellent remedy in other diseases, and notably in old-standing cases of syphilis; but upon this I need not enlarge at the present time.

LUPUS: ITS NATURE AND PATHOLOGY.

By J. HERBERT STOWERS, M.D.*

In the whole range of Dermatology, there is not a disease the dreadful ravages of which are so familiar to us, or which deserves, on account of its nature and the deformity it occasions, added to the very great difficulty met with in its successful treatment, more careful study. Although from an early date evidence exists to show that lupus was recognised as a disease, yet we are aware that for a considerable period it was not unfrequently confounded with two other affections now long since proved to be separate and distinct, viz., cancer and syphilis. With our present knowledge of cancer, it is unnecessary to make further remark. Syphilis also, the outward manifestations of which are so well known, I will at once dismiss, merely pointing out how undesirable it is that the term "syphilitic lupus", which we still occasionally hear applied to that tubercular syphilide, which is not an uncommon form of syphilitic cutaneous disease, should be retained. As one of the later phenomena of constitutional syphilis, a condition presents itself which appears at first to have some characters common to lupus. However, as its course is always more or less definite, commencing from a definite starting-point, viz., the absorption of a specific virus into the system, distinct from that of lupus, unnecessary confusion can only result from the employment of a term which implies other than true syphilis.

I wish at this time to invite the attention of dermatologists to a few points in connection with the nature and pathology of lupus. Belonging to the class neoplasmata, lupus cannot be regarded as a simple hypertrophy. Notwithstanding the difficulty which occurs at all times in the endeavour to trace the accurate course of any disease dependent upon a constitutional origin, still the bulk of evidence proves unmistakably that lupus does not depend upon local causes. That local injury, e.g., a blow, has some determining influence, under certain circumstances, in bringing about lupus, is beyond dispute, cases occasionally coming under notice in which the disease has appeared almost immediately after its receipt. I have notes of several cases in support of this in my possession. Lupus, then, is to be regarded as a local expression of a constitutional disorder expressed by the terms struma or scrofula; and by lupus is understood a local degeneration, strumous in its origin, essentially chronic in its character, and "attended with more or less hypertrophy, with absorption, and with ulceration". As one or other of these characters is most marked, we apply a special name, e.g., lupus hypertrophicus, lupus exedens, etc.

Lupus exedens, or ulcerating lupus, although differing much from the non-ulcerating variety in appearance, is yet only a more advanced stage of the same morbid process, produced at first by the development of and the infiltration of the skin with a new cell-growth, which, being incapable of organisation, is removed by interstitial absorption or by ulceration. When arrested, the ulceration is eventually covered with a smooth, white, shiny cicatrix, frequently marked by elevated lines radiating irregularly from the centre. The new growth, constituting, besides the infiltration, the so-called tubercles of lupus, is composed of minute cells resembling lymph-corpuscles, rounded, nucleated, and originating, according to Virchow, from the connective-tissue corpuscles, the starting-point being the corium itself. The accounts of various microscopic observers, differing according as the specimens have been examined in different stages of development. Auspitz, Neumann, Virchow, Kaposi, and others, have arrived at almost similar conclusions. Friedländer, however, has expressed the opinion that the cells previously referred to are tubercular, and consequently, recognising little or no difference between them, concludes lupus to be a local tuberculosis. Concerning this point, I would especially ask the opinions of observers present.

With regard to the frequency with which lupus is met in hospital practice, Dr. White, of the Harvard University, Boston, has published some interesting statistics. He showed that in 10,000 consecutive cases of general skin-diseases under notice in America, 62 cases of lupus occurred, equal to .6 per cent.; in Glasgow, 1.98 per cent. in the same number; in Austria, 3 per cent.; and in 3,000 consecutive cases of skin-

diseases occurring in Dublin, lupus did not once appear. During the last four years, I find that the number of cases of lupus, including all varieties, attended in the out-patient department of St. Bartholomew's Hospital, London, has amounted to 58 in 2,296 skin-patients, or about 2.5 per cent. Of these 58, there were males 22, females 36.

The following tables give the ages of patients when disease first appeared, etc., and its site in those cases of which I have taken special notice in the Hospital Skin Register, Mr. Morrant Baker, who has charge of the department, having kindly allowed me to make use of them. The sex and age at commencement were as follows.

Lupus (non-exedens) or non-ulcerating.—*Females*, 13: 1 at 6 months, in cheek and hand; 1 at 4 years, in neck; at 7 years, in cheek; 1 at 10 years, in cheek; 1 at 10 years, in cheek and nose; 1 at 11 years, in cheek; 1 at 12 years, in cheek; 1 at 14 years, in cheek, nose, and knee; 1 at 22 years, in nose and eyelid; 1 at 31 years, in cheek; 1 at 34 years, in cheek; 1 at 42 years, in cheek and nose; 1 at 46 years, in cheek. *Males*, 7: 1 at 1 year, in forearm; 1 at 4 years, in forearm and cheek; 1 at 8 years, in thigh and prepuce; 1 at 12½ years, in cheek and nose; 1 at 13 years, in dorsum of foot; 1 at 20½ years, in nose; 1 at 31 years, in dorsum of hand.

Lupus erythematosus.—*Females*, 3: 1 at 10 years, in cheek and nose; 1 at 12 years, in cheek and nose; 1 at 24 years, in face and scalp. *Males*, 2 (notes incomplete).

Lupus (exedens) or ulcerating.—*Females*, 6: 1 at 8 years, in nose; 1 at 12 years, in nose, fingers, and foot; 1 at 12 years, in nose and cheek; 2 at 15 years, both in nose and cheek; 1 at 17 years, in upper and lower lips and cheek. *Males*, 3: 2 at 14 years, in nose; 1 at 17 years, in nose.

It will be observed that lupus occurs more commonly in females, 36 being the number, as compared with 22 males. Mr. Hutchinson, in some published statistics, has stated that he met with 46 females affected in a total of 74 lupus patients. In the 58 cases I have narrated, only two instances were met with in which two members of one family exhibited lupus at the same period.

Again, Mr. Hutchinson has pointed out that phthisis is not infrequently observed in the families of those suffering from lupus. Owing to the obvious difficulty in obtaining reliable family histories from hospital patients, I have been able to discover but few instances of the kind in which phthisis has been proved to have occurred. I am anxious, however, to obtain the experience of members present on this particular.

Lupus is most common in persons whose ages are between fifteen and thirty years. In 74 cases, Mr. Hutchinson has stated sixteen years to be the average age.

Its selective seat is the face. According to Devergie, this was the seat in 41 out of 44 cases. The nose was affected in 16 cases; the nose and other parts of the face together in 26 cases, and the lips 4 times.

It will be noted that the face or neck was affected in each of the 13 female patients presenting simple or non-ulcerating lupus, and in 3 out of 7 males; in each of the 6 females with ulcerating lupus, as well as the 3 males; and also that the face was the seat of the disease in the three females having lupus erythematosus. Besides the above, lupus was observed once on the forearm, three times on the hand (dorsum), twice on the dorsum of the foot, and once on the thigh and prepuce.

Lupus erythematosus has been regarded by many as differing only in degree from the other two forms of lupus; viz., the ulcerating and non-ulcerating. There is, however, a distinct variety of lupus erythematosus, more often met with in Germany than elsewhere, which could be explained only by pathological changes peculiar to itself, and which Hebra has designated by the term "seborrhœa congestiva". Hebra, taking his standpoint from the appearance of the distended and plugged ducts of the sebaceous follicles, connects this disease with these glands. Neumann, in 1863, describes the change as consisting of alteration of the form and relative size of the papillæ, cell-infiltration of the corium, and alterations in the sebaceous glands, being due to growth of the connective tissue around their walls and degeneration of their secreting cells.

Geddings has pointed out the enlargement of the blood-vessels, and their distension with old corpuscles; and, as the result of his investigations, makes the inference that lupus erythematosus is a special form of skin-inflammation, which begins at the sebaceous follicles.

Dr. Thin published in the *Medico-Chirurgical Transactions* for 1875 the results of his own observations in a well-marked case. He mentions that the capillaries of the papillæ were enormously distended with red blood-corpuscles. In some papillæ, this distension was so great that a capillary loop nearly filled a papilla of medium width. In different parts of the corium, similarly distended and filled capillaries were seen. The veins also were distended and filled with blood. The arteries were empty. The abundant networks of capillaries surrounding

* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

the sweat-glands were also greatly distended, and filled with blood-corpuses. The rete Malpighii, fibrillary tissue of the corium, and sweat-glands were perfectly healthy. The disease was firmly established in a part of the skin where there were no sebaceous glands, and in which the sweat-glands still presented a normal appearance. But, although none of the changes that had been described by the observers previously mentioned as occurring in the sebaceous and sweat-glands and fibrillary tissue were present, there was a morbid condition of the capillary blood-vessels, which, if it had been persistent, was certain, in the course of time, to have produced all of them. An atrophied condition of the capillary layer of the cutis—what Cazenave has described as thinning of the skin—must be the inevitable consequence of a blood-stasis by which the circulation is virtually destroyed. Dr. Thin concludes that as yet we know, in this disease, no changes antecedent to the congestion of the capillaries, and can associate with it no special constituent organs of the skin. It is suggested, therefore, that the affections of the sebaceous and sweat-glands should be considered, not as being necessarily the causes of the congestion, but as following it. Dr. Thin's observations cannot fail to have attracted the best attention of all dermatologists.

ON THE TREATMENT OF LUPUS BY LINEAR SCARIFICATION.*

By BALMANNO SQUIRE, M.B.Lond.,
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THE treatment of lupus by scarification is not new. Scarification, in the form of so-called "multiple punctiform scarification", has been employed for many years in the treatment of lupus, and with considerable success in many countries. The first observer who reduced it to a demonstrable success was the now venerable Dr. Dubini of Milan; and it subsequently derived a considerable impetus from the warm advocacy of Dr. Volkmann of Halle, in Prussia.

Multiple linear scarification was first proposed by myself, now a few years since, as an improvement on the Dubini-Volkmann method. Its effect is similar, only that it is more thorough, and that the results obtainable by means of it are more prompt, and at the same time it provides more effectually against relapses. But the principal claim that the operation may possess on the attention of the profession as a serviceable resource in this, one of the gravest of the diseases of the skin, rests on the strong support which it has recently won for itself. Dr. Walter Smith of Dublin, Mr. Malcolm Morris of London, and Dr. Vidal of the Hôpital St. Louis in Paris, have tested it, and have spoken of it with approval in the writings which they have published.

Like punctiform scarification, it effects, by section of the capillaries, a prompt decrease of the hyperæmia of a lupus-patch, and coincidentally, by the traumatic inflammation it excites, it causes the disappearance of the new formation special to lupus. The careful microscopical researches of Dr. Vidal have shown that the lupus-cells, under this process of treatment, undergo conversion into fibrous tissue. By observation of preparations of sections of the lupus-patches, obtained at different times during treatment by scarification, he has ascertained that the lupus-cells gradually alter their configuration and assume the shape of fibres of connective tissue.

This observation is of some practical importance, as serving to explain an advantage which both Dr. Vidal and I have frequently remarked as special to this plan of treatment; namely, that no loss of substance results after the cure of the disease by this method. Now, this is a matter of prime moment in a disease which is especially apt to invade the face, but more particularly when it affects the nose—a feature often attacked by lupus.

Under any other method of treating lupus with which I am acquainted, the nose, in the condition in which it commonly comes under observation, is in great part necessarily lost, even when treatment happily achieves the complete cure of the disease; but, when the treatment is by linear scarification, the nose may often be actually *rebuilt*; so that the organ, already in part virtually destroyed, may at length be regained in its original form. In other words, the lupus-tissue, which has come to replace the substance of the true skin, instead of undergoing actual destruction—as, for example, it does under treatment by cauterisation—or, again, instead of undergoing molecular ulceration by the application of semicaustics, such as the red iodide of mercury, advocated by Dr. Hardy of Paris,—becomes actually the material out of which repairs are constructed. The practitioner, no longer glad to be content with arresting the lupus in its present state of progress, finds himself able to cause the disease to retrace its steps, and to restore out

of its own means that fibrous tissue which it has slowly, and yet apparently surely, destroyed. It is to the microscopical researches of Dr. Vidal that I am indebted for the *rationale* of the result. By means of linear scarification, I have succeeded in reconstructing a nose which externally as well as internally—that is to say, both as regards skin and mucous membrane—was converted into fungous granulations, consisting wholly of rotten lupus-deposit, and supported by cartilage which a little later must surely slough away; and so I have seen a nose, which apparently could only end in a withered stump, regain its original form with scarcely any alteration of its original condition.

Dr. Vidal has recorded a case in which he treated a portion of a lupus-patch by means of erosion—namely, in the centre, and by linear scarification over the rest of the patch. After the cure of the case, a depressed scar existed only over the part treated by erosion. A model of the case is preserved in the museum of the Hôpital St. Louis. I have recently seen it, and think it illustrates very fairly the *difference* of the two kinds of treatment.

There are various details in conducting the operation, into which there will not now be time to enter.

The operation is painless, if the skin be first frozen by the ether-spray. It may be rendered expeditious by a multiple linear scarifier which I have devised, and which has been constructed for me by Messrs. Weiss of London. It is in every way less irksome to the patient than any other means of local treatment; that is to say, than any other means (of efficacy) of which I am aware. I do not speak of internal remedies, since I have found them to fail.

It remains to compare the effect of linear with that of punctiform scarification. The latter consists of stabbing the affected skin with a fine needle, or with the point of a narrow lancet. This method fails in precision. It is impossible to space the punctures equidistantly; and, in practice, the skin presents always, after the operation, clusters of punctures more or less crowded on one another, with intervals of but scarcely punctured skin; whereas in linear scarification, especially if it be performed with a suitably adjusted multiple scarifier, the incisions are *equally* spaced, so that even at the first operation the effect produced is uniform; whereas by repetition of the operation, veering the direction of the incisions at each repetition, the complete disappearance of the disease may be speedily arrived at.

I have only to add that the little cuts heal completely within a week, so as to permit a repetition of the operation; and that eventually the cuts leave no perceptible trace of their existence. In fact, they disappear *absolutely* after a moderate interval. A satisfactory amelioration of the disease results within a few days after the first performance of the operation, which needs to be repeated, as to some cases, only a very few times in order to ensure a complete and often a lasting cure.

ON A RARE NODOSE CONDITION OF THE HAIR.*

By WALTER G. SMITH, M.D.Dub., F.K.Q.C.P.I.,
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CONSIDERABLE discussion has taken place within the last year upon the nomenclature and nature of certain textural changes in the hair, and some light has been shed on a subject that has hitherto lain in obscurity. I refer especially to two papers of interest: one on the condition known as trichorexis nodosa (or trichoclasia) appeared in the *Dublin Journal of Medical Science*, February 1879, from the pen of Dr. W. Whitla of Belfast; and an excellent summary of what is known as to atrophic and nutritive changes in hair was contributed by Dr. T. Colcott Fox to the *Lancet*, December 7th, 1878.

On this occasion, I propose to exhibit and describe specimens of a remarkable affection of the hair which has lately come under my notice, and which appears to me to differ in several respects from any hitherto described.

CASE.—Mary M., a dressmaker, aged 19, of fair complexion, with dark hair, applied at the Dispensary for Diseases of the Skin, Adelaide Hospital, in June 1879, on account of thinning and loss of her hair. When about three years of age, she had "ringworm", but, with that exception, neither she nor either of her brothers (aged 8 and 14 respectively) ever suffered from any disease of the skin. Some years ago, she had "lumps" in her neck, but was never affected with a sore throat or sore mouth, and presented no sign or trace of syphilis; The nails were healthy, and there was no swelling of the lymphatic glands in the neck or elsewhere. She was subject to "styes" on the eyelids, but her sight was excellent. The catamenia set in between fifteen and sixteen years of age, after the hair had begun to fall, and she had men-

* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

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