share in developing the proneness to ulcerate: thus lupus on the feet almost always ulcerates early.

IV. The term *acne-lupus* may be given to the disease when it occurs in scattered spots, like those of acne or impetigo. It is well illustrated in the portraits which I exhibited in the annual museum some years ago. It has also, I believe, been carefully described by one whose recent loss to dermatology we all deeply lament.

V. It may perhaps seem strange to many to suggest the term *eczema-lupus*. The characters of eczema and lupus are generally wholly distinct. There is, however, a very rare form of lupus inflammation of the skin which looks exactly like eczema. The state of the surface is not to be distinguished from eczema, and the diagnosis can be based only on the history that the patch has existed for years, that it slowly spreads at its edge, is amenable to no treatment, and when cured leaves a thin scar. In respect to the extreme thinness of the lupus growth, this form resembles lupus erythematosus; but it is never, like it, symmetrical.

VI. *Lupus marginatus* is a name which I have ventured to give to a very rare and very peculiar form of lupus, in which the margin is extremely thin and delicate, and in which, with no visible ulceration, a very superficial scar rapidly forms in the centre. It is certainly in essential features a lupus; and it differs from lupus erythematosus in not being very vascular, and in having no tendency to symmetry. I have seen but two or three examples of it.

It would not be difficult to mention several other very exceptional forms of skin-disease in which the features of lupus are assumed, and which ought, I think, to be recognised as its congeners. It is to be understood, however, that for the purposes of ordinary practice it is sufficient to recognise the common and erythematous types and to keep in mind that tendency towards scrofula, towards chilblains, and towards psoriasis give peculiarities to individual cases.

It is necessary, in order to complete the subject, to say a word or two as to lupus of mucous membranes. Lupus of the gum is not uncommon, and from the gum it not unfrequently extends to the palate. It is very seldom seen in the pharynx, and I am not aware that it has been traced lower in the alimentary tube. Lupus of the conjunctiva constitutes a rare and very peculiar form of disease. In the rectum and vagina, lupus is probably very unfrequent, and its examples in these regions have not as yet been identified with sufficient accuracy to permit of much being said about them.

If I have been detailed almost to tediousness in particularising the causes of lupus and its alliances with other maladies, I had before me the desire to clear the ground for the establishment of definite principles of treatment. I have tried to prove that lupus is mainly a scrofulous malady; that it is influenced by the causes which induce chilblains; and that in some cases it has an alliance with psoriasis. I have asserted further that it has no connection with syphilis. From these data, the rules for treatment, or at any rate for constitutional treatment, are easily evolved. We must improve the patient's state of nutrition by tonics, good food, bracing air, cod-liver oil, and the judicious use of stimulants. To all these, arsenic—the specific for psoriasis—may usually with much advantage be added. We must further protect our patients from the influences which cause chilblains; send him to a warm climate in winter, or, failing that, make him keep the house as much as possible. We must abstain from enfeebling the health by iodides and mercury. But, since the lupus growth is self-infective, it is impossible, when once it has begun, to arrest its spread by attention to the general health. We may perhaps prevent ulceration, but that is often all. As far as the cure of the local process is concerned, it must be effected by local measures, and these measures must be of the nature of destructions. The new cell-growth must be destroyed, eradicated without delay and without flinching. Without doubt, the most important point for discussion in this meeting is as to the best means of destroying the vitality of the lupus growth. I have had considerable experience of these methods—the use of caustics, the actual cautery, and Volkmann's erosion method. All are very good, but I unhesitatingly prefer the last. If caustics are used, they must be used very freely. I have repeatedly seen a patch wholly cured by a single dressing with chloride of zinc or acid nitrate of mercury. As a rule, these remedies were used too timidly or without sufficient painstaking. They give more pain than the actual cautery, but their sores granulate better and heal more quickly. The actual cautery is comparatively painless, can be easily limited, and at the same time made to act deeply. It is very efficient, but its burns are sometimes slow to heal. The erosion treatment appears to give less pain, to be very efficient, and to leave a sore which heals rapidly and soundly. Its introduction will, I think, mark a new era in the treatment not only of lupus, but of rodent ulcer. It is so simple, so easy of employment, and has in it so little that is alarming either to surgeon or to patient, that it is likely in the future to be

employed in the early stages, whilst there is good hope of the complete cure of the disease. Lupus erythematosus is often benefited by solutions of tar and of lead, and the free internal administration of arsenic.

I must here bring my paper to a close, and leave the subject in the hands of the meeting. Whilst sincerely regretting the incompleteness of my sketch, I can but hope that I have stated the leading points with sufficient clearness to elicit a profitable discussion.

ON THE USE OF IODIDE OF STARCH IN THE TREATMENT OF LUPUS ERYTHEMATODES.*

By MCCALL ANDERSON, M.D.,

Professor of Clinical Medicine in the University of Glasgow.

EVERYONE conversant with the treatment of lupus erythematosus must be well aware how obstinately it resists internal remedies. At all events, my own experience hitherto has been that no internal remedy is capable of itself, even in isolated cases, of removing the eruption, although I have known it to disappear spontaneously.

Any medicine, therefore, which, in a certain proportion of cases, is capable of ameliorating this condition, must be hailed with satisfaction; and that will be found to be the case with iodide of starch. I learned this fact in the following way. My friend Dr. Colligan of Paisley sent me a patient labouring under well-marked lupus erythematosus some years ago. We agreed to try from time to time various local applications, which certainly effected some improvement, but altogether failed to eradicate it. A considerable time after this, happening to meet Dr. Colligan in connection with another patient, he said to me: "By the by, do you remember the patient I sent to you with lupus erythematosus? I used all the applications you recommended, but they did not remove the eruption; so I thought I would try the internal administration of the iodide of starch which I had often seen employed for other diseases by Dr. Andrew Buchanan, when I was a student. Well, I gave her a teaspoonful of it three times a day, and in two or three weeks the eruption was gone." I expressed myself equally surprised and gratified, and promised to give it a trial. For a couple of years before this, I had been seeing from time to time a lady, the sister of a medical friend, who suffered from the same complaint in an aggravated form, not only on the face, but also on the head; and, although some impression was made upon the disease by means of local applications, the results of the treatment had been anything but satisfactory. I therefore wrote to the doctor, mentioning Dr. Colligan's experience, and suggesting a trial of it in his sister's case, which he did. Some time afterwards, the lady came to see me, and I must confess that I was astonished to find that in her case too a great amelioration had taken place in her state (although she could not be said to be completely cured), much greater than from the previous persistent use of most of the recognised remedies, and that without the simultaneous use of any external treatment whatever. Since that time, I have in many cases used the remedy in doses of from one to four teaspoonfuls in water or water-gruel three times a day, and while in some no result whatever has followed, in a fair proportion of them much benefit has accrued; so that I now regard it in the light of a valuable addition, though far from an infallible remedy, to our means of combating one of the most obstinate diseases of the skin.

For the introduction of the iodide of starch as a remedial agent we are indebted to Dr. Andrew Buchanan, whose papers upon the Physiological and Therapeutical Effects of Iodine (*London Medical Gazette*, vol. xviii, page 515, and vol. xix, pages 41 and 80) will well repay perusal. Owing to the irritant local action of other preparations of iodine, he was led to look out for some new medicinal preparation which might be less acrimonious in its local action, while its absorbability and alterant virtues were not diminished, and for this purpose the iodide of starch suggested itself to him; and there can be no doubt that by employing it much larger quantities of iodine can be introduced into the system, even to the extent of over seventy grains daily. The following is the formula for its preparation: R Iodi gr. xxiv; amyli ʒj. Triturate the iodine with a little water, gradually adding the starch and continuing the trituration till the compound assumes a uniform blue colour, so deep as to approach to black. The iodide should be dried with a heat so gentle as to run no risk of driving off the iodine, and it ought to be kept in a well-stoppered bottle. On no account should spirit be used in its preparation instead of water, as sometimes recommended. The dose is a heaped-up teaspoonful in a draught of water or water-gruel thrice daily; but it may be safely increased, even up to an ounce in some cases, if necessary to make an impression on the disease. I have

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

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. Morratt 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

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