the patient from experience of relief and reprieve, attained by their preceding experience.

Four patients died within a few days of the operation, partly from exhaustion, two from cystitis and peritonitis, all among the very early cases, probably from too great an anxiety on my part to remove the whole of the growth, and the want of safer and more efficient instruments, which experience has led me now to employ. Two died from blood poisoning, each on the twelfth day after operation, one after the perineal incision, and the other after the removal of a large tumour by the suprapubic route. Several are living with threatening return: the great majority gaining relief from severe symptoms and some extension of life, varying considerably in different instances.

We have to remember that every patient with bleeding vesical tumour inevitably succumbs sooner or later to his fate, unless surgical aid is afforded. Every case therefore of permanent cure is a life absolutely saved by our art, while prolongation of life, whatever it may amount to, is equally so. Hence these results, although necessarily showing many failures to remove the disease, certainly manifest a considerable aggregate of clear gain in the matter of human life, and must be so regarded in relation to the sum total of those who are afflicted.

Under these circumstances it is impossible to predict for any individual case the result of operation, even in an approximate degree. Until incision has been made and actual contact with the finger, sufficing to ascertain the physical characters of the tumour, has been completed, no one can say whether it be possible to remove it completely. If separation is not complete there is not much hope of a permanent cure; nevertheless, I am disposed, after observing the issue of one of my cases which suggested the idea, to think that even when not quite removed there are two processes, almost necessarily following, which tend to favour a successful issue. The first is, sloughing of a thin layer of the surface left, due to the crushing action of the blunt forceps; secondly, the cicatricial action and contracting of the surface, which probably suffices to strangle and destroy any very slight remains of the papillomatous tissue there.

HARVEIAN LECTURES ON LUPUS.

Delivered before the Harveian Society, December, 1887.

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LECTURE II.—THE VARIETIES OF COMMON LUPUS.

The Histology of Lupus Vulgaris.—Of Lupus Erythematosis.—Dr. Thán's Records.—Dr. Jamieson's Case.—Lupus not always the same.—Explanation of the Causes of Variability.—The Bacillus.—Reference to the Schedule.—Definition of Lupus.—Distinctions between Vulgaris and Erythematosis.—Meaning of Symmetry and Non-Symmetry.—Struma-Lupus.—Necrogenic Lupus.—Lupus Mutilans.—Lupus of Mucous Membranes.—Eczema-Lupus.

I SAID in my last lecture that it was my wish to submit the question of the real nature of lupus to the test of clinical rather than of purely histological evidence. I have, in truth, no faith that it is possible to solve it by the latter. We must not, however, pass it by without availing ourselves of its aid, so far as it can at present help us. I wish, therefore, to somewhat amplify what I then said on this matter.

"It is now generally believed" (I quote the words of Dr. Sangster, a much better authority than myself) "that the earliest changes of lupus are to be sought for as an independent cell growth in the corium, either affecting it as a whole (as held by Neumann, Auspitz), superficially (as held by Virchow, Billroth), or beneath the vascular layer (as held by Kaposi)."

The differences in opinion of different observers as to the precise part first attacked are to be explained by reference to the different stages of the disease which they had under their inspection. The most vascular parts of the corium, the immediate neighbourhood of the sebaceous and sudoriferous glands, and the peri-vascular spaces of the blood-vessels themselves, are the parts where the cell growth is first seen. It is usually noticed first in the most superficial parts of the corium, in close connection with the Malpighian layer; so that many observers have believed that it originates in a germination from the under surface of this structure. In the end the deep layers of the corium and even the uppermost of the adipose structures become in-

involved; and at this period the glands and hair-sheaths are for the most part destroyed by pressure. Unless ulceration has taken place, the layers of the epidermis and the rete Malpighii, although somewhat altered, remain intact. A very important observation has been made by several, and is confirmed by Dr. Sangster, that the Malpighian layer is apt to grow downwards in processes much resembling those of epithelial carcinoma.

The cells which constitute lupus tissue are at first not easily distinguished from white blood-corpuscles, but at various stages and in different parts they present certain differences, becoming larger and lighter-coloured, with less granular contents. There are also seen oval bodies conspicuous for their shape and faint colour, which resemble the nuclei of the deep Malpighian cells, many of them having a point-like nucleus.

The presence of "giant cells" has been asserted by several observers, Langhaus, Friedländer, etc. But the exact nature of the appearances so named has been disputed by others. Professor Lang supposed them to be only degenerated sweat tubes. Sangster is of opinion that "true giant cells are sometimes met with." As to the real origin of true giant cells there is, however, much discrepancy of opinion still existing amongst histologists.

These descriptions apply to lupus vulgaris only; and let us always bear in mind to well developed examples of it only. The microscopist always selects for his purpose a position where the apple-jelly growth is well displayed, and it is this growth which he describes. His observations upon such cases scarcely touch the question as to whether there are not antecedent conditions which cannot be distinguished from common inflammation, nor that as to whether in other states the peculiar features of lupus growth be not wholly concealed by super-added inflammatory products. Respecting these, I suspect that the microscopist would not unfrequently allege that there was no proof that the disease was lupus at all, and the assessor would have to fall back on the clinical evidence. We may take it as certain that whenever the naked eye can recognise apple-jelly, the microscope can always find a definite and characteristic cell-growth in the corium, whilst respecting the other less marked conditions different verdicts will be given. The inflamed form which lupus almost always presents on the hands and feet, for example, will probably but rarely present for the microscopist appearances which are conclusive, and we have to prove that it is lupus by its laws of extension and persistence, and by the presence of better characterised patches on other parts in the same patient. I am anxious to impress this point because it is of great importance in reference to the admission of various allied diseases into the lupus family. My assertion is that lupus is by no means definitely *sui generis*; that it is only a specialised type of chronic inflammatory action, and that the degree of its specialisation may vary much in different cases, being in some so slight as almost to defy recognition.

If from lupus vulgaris we now turn to the histology of lupus erythematosis, we shall find almost all observers unanimous that there are important differences between the two. Some have even thought these differences so great as to wholly detach the maladies from relationship. Such, I need hardly say, is not my view. If we take the examples of common lupus in which cell growth is most marked and those of erythematosis in which the condition approaches nearest to mere erythema (as when it becomes generalised), then assuredly we shall have no difficulty in demonstrating by the microscope most conspicuous differences. The conditions delineated, for instance, by Dr. Thin in his able paper in the *Medico-Chirurgical Transactions*, show little more than dilatation of the capillaries. For Dr. Thin lupus erythematosis is in the main a disease of blood vessels. There are, however, other forms of the malady which present other appearances, and just as it is, I assert, often by the unassisted eye impossible to say conclusively whether any given case should be assigned to vulgaris or to erythematosis, so it is equally difficult when we examine a microscopic section. I shall prove my assertion as to this difficulty—impossibility, if you will permit the word—in the living patient by producing before you a number of portraits published by different authors on lupus, and I have no fear as to your verdict. In reference to the inspection of sections I will ask those who are skilled to examine the drawing which I produce and to tell me whether it shows the conditions of vulgaris or erythematosis. There is, as you will see, abundant cell growth in the superficial layers of the corium, and I quite expect that most will declare the appearances those of common lupus. I have, however, borrowed the woodcut from a paper by Dr. Jamieson, of Edinburgh, and it is taken from a case the whole history of which proves it to have been an example of the erythema form.

¹ I have to express my thanks to Dr. Jamieson for his kindness in lending the woodblock which I here use.

Respecting erythema lupus, indeed, the opinions of microscopists⁸ have been not a little various. Some have held that it begins around blood vessels; others (Geddings) that it is a disease principally of the sebaceous glands, whilst others locate it in the corium, or even think that the sudoriparous glands are its special sites. These discrepancies ought not to surprise us, and they reflect no discredit whatever on the observers or their modes of work. The fact is that lupus inflammation in the erythematosus as well as the vulgaris type presents great differences, and that the structures chiefly affected are by no means always the same. Neither it nor vulgaris are diseases of any special structure in the skin, whether gland or vessel, but beginning rather in the areolar spaces they implicate secondarily one or other of the cutaneous viscera or vessels. It may be the sudoriparous glands or the sebaceous ones, it may be the hair follicles, it may be the perivascular spaces, or, lastly, it may chance to be the lymphatics (lupus lymphaticus). Hence some of the differences which the lupus process assumes, and some of the various names which have been given to it. We must not look for sameness where Nature has made variety.

It may perhaps help to simplify our conceptions on the subject if we make bold to deny that there is any such pathological entity as lupus, and to assert that it is simply a name which for convenience sake we give to certain types of the inflammatory process, endlessly varying in detail, but having certain features in common.

With the preliminary statement that all varieties of the lupus when once well established keep to their type, it may next be well that I should state categorically the circumstances under which these varieties take their rise.

1. *The Kind of Local Irritation.*—Whether, for instance, a sting or bite, a wound, a sunblain, a chilblain, or a dissection prick.

2. *The Peculiarities of the Part to which the Irritation is applied.*—Thus the tip of the nose, its alæ, its bridge, the clefts of the toes, the scalp, the various mucous membranes, etc., each have their one more or less peculiar form of lupus.

3. *The Vital Endowments of the Individual.*—Whether of vigorous

circulation or easily liable to chill, whether thin or of abundant cellular tissue, whether liable to chilblains or otherwise.

4. *The Age of the Patient.*—Thus the younger the patient the more certain it is that the lupus will be of the vulgaris type, and the more probable that it will become multiple. Lupus erythematosus scarcely ever begins before the disturbances in circulation incident to puberty have occurred.

5. *The Sex of the Patient.*—The female sex is more liable than the male to lupus vulgaris, but in lupus erythematosus the difference in proportions is very marked indeed. The influence of menstruation in disturbing the circulation is probably here at work.

6. *The Inherited Tendencies of the Patient.*—There can be little doubt that those who inherit a state of constitution liable to the easy growth of the tubercle bacillus are liable, also, to all the forms of lupus. They are just as prone, perhaps more so, to be attacked by erythematosus as by common lupus. The mucous membranes are, perhaps, seldom attacked, excepting in those who are tuberculous. An inheritance of a tendency to cancer gives, perhaps, a tendency to common lupus.

I have as yet spoken but very briefly of the tubercle bacillus in its relation to lupus. Many observers have succeeded in finding in the cell-growth of common lupus a bacillus, which all agree in regarding as identical with that of tubercle. It is, however, but sparingly found, not without much patience of search, and in many, or perhaps most, cases, it is not to be found at all. I am not aware that anyone has as yet recognised it in a well marked case of lupus erythematosus, but this, no doubt, is only a question of time, for tuberculous antecedents in the subjects of lupus erythematosus are, I think, more frequently met with than in those who present the vulgaris form. It is premature to venture upon any opinion as to the relation of this bacillus to the lupus process. The cases in which it is found do not differ so far as I am aware from those in which it is not. I must leave you to form your own conclusions as to whether it is likely that a bacillus is the cause of lupus, when I have developed in more detail the clinical history of the varieties of the malady.

We will now, if you please, turn to the schedule of the Lupus Family which has been placed in your hands (see page 7 of the JOURNAL for January 7th).

The general definition of lupus which I have given, as a *serpiginous, infective, scar-leaving inflammation of skin and mucous membranes*, will, I believe, include all varieties of the disease, and, with two exceptions, nothing else. Nothing is lupus which does not spread slowly by infection at its edge, and which does not leave the affected part more or less disorganised; and every form of inflammation of which these are necessary and invariable qualities is lupus, unless it be either syphilis or cancer. I need not trouble you with much as to the distinctions between cancer and lupus, because they are usually very obvious. It is only by exception that malignant action shows any tendency to permit of cicatrization in the parts which it has disorganised. A few rare forms of superficial rodent ulcer are the only conditions in which malignant action produces appearances which clash with my definition of lupus. It is, however, wholly different in the case of syphilis. Probably there is not a single variety of the lupus type of inflammation which may not be simulated, and that too with the utmost closeness, by syphilis. The diagnosis depends upon certain minor features of peculiarity, upon the history of the case, and upon the effects of specific treatment. Thus, then, the truth seems to be that the syphilitic poison can produce lupus inflammations. In doing this, however, it stamps them all with its own nature, and we are concerned, not with the true disease, but with an imitation of it. I cannot too strongly insist that the imitation is most accurate, and the diagnosis often most difficult. So far as the definition is concerned, I should be prepared, whenever a syphilitic skin disease spreads at its edge and leaves a scar where it has been, to say of such a disease, "it is a syphilitic lupus." It may be an eczema-lupus, a rupia-lupus, a lupus vulgaris, or lupus erythematosus.

The next point which stands for our consideration is the distinction between lupus vulgaris and the erythematosus form. I have enumerated in order on the schedule the chief features of difference; but part of my argument is that the two run into each other, and that there are connecting links. No single one of the features of difference is invariably such. Although apple-jelly growth characterises the most marked cases of common lupus, it is very often not to be found, and in some cases of erythematosus form the discs of the disease are somewhat thickened, and present this growth in a minor degree (see one of Hebra's portraits). A more trustworthy feature of difference is to be found in the strong tendency to symmetrical development in the erythematosus form, and the invariable absence of any definite

tendency in this direction in lupus vulgaris. The bat's-wing form assumed by erythematous lupus on the face is well known. We know also that it is not uncommon for the bat's-wings (on the cheeks) to have no continuity with the body (on the nose), and as further illustration of the law of symmetry, we know exactly where to expect the next manifestations of the disease. They will come in the ears, and in both ears, and again without continuity with the cheek patches. Next to the ears, we shall probably see the hands attacked, and it will be both hands. So constantly is this observed, that I have, as just observed, ventured to place the fact that lupus erythematosus tends to develop symmetrically and lupus vulgaris not, foremost amongst the clinical features which distinguish them. It is certainly a very remarkable fact.

Whilst, however, insisting upon its importance, we must not exaggerate it. There are many cases of erythematous lupus which show no symmetry, but they are, I think, all of its sub-class, the sebaceous form. The more purely the disease keeps to the erythema type, the more certain it is to be symmetrical. Thus, I never saw one hand affected and the other free. On the contrary, I never in any single case saw lupus vulgaris, however numerous its patches might be, and however widely diffused, with any definite symmetrical arrangement. A tendency to symmetry is shown in the portrait of multiple lupus of children which I showed at our last lecture; but still, the exceptions to it are conspicuous, and far greater than we ever witness in psoriasis, pemphigus or any other skin disease which is really symmetrical in its outbreaks.

I cannot but think that we have a very interesting problem before us in this non-symmetry of the one lupus and symmetry of the other. Let us ask what symmetry implies. It means, in the first place, that there are on the two halves of the face and body and on the two sets of limbs corresponding parts, that is, parts which, by mutual sameness of structure and function, are liable in exactly similar ways to the attacks of disease. Let a poison circulate freely in the blood, and it will be likely to attack these corresponding parts, and produce symmetry of manifestation. The phenomenon in question may, however, imply more than this: it may mean that, wholly apart from any blood infection the tissues originated for themselves, whether with or without the help of external irritants, similar processes of disease. Thus, when chilblains occur on both feet or on both hands or on both ears, we explain the fact by assuming that the corresponding members were alike in structure, and have suffered alike from exposure to cold.

We do not think it necessary to seek for any blood contamination to account for the symmetry. Now by which mode of explanation shall we account for the symmetry of lupus erythematosus. You will see that the one presupposes a higher degree of constitutional or inherited peculiarity than the other. A person in whom but little of hereditary peculiarity of tissues existed might easily, if his blood were rich in germs, become the subject of symmetrical manifestations. On the other hand, it would require great pre-existing peculiarity to bring about a symmetrical yielding to disease under the ordinary kinds of exposure to external irritation. It may be that in lupus erythematosus we have to reckon with both classes of causative influence. It may be also that in some cases congenital peculiarity of structural proclivity takes a far larger share than it does in others. In the more severe forms—those for instance in which the patches on the face are very large, and the condition almost purely erythematous, those in which the hands also suffer (see for an example the New Sydenham Society's portrait), I think we must presuppose peculiarity of structure. The vital endowments as regards vigour of circulation and cell-growth are probably very similar to what we meet with in those who are exceptionally liable to chilblains. This hypothesis, probable as it is, however, by no means puts wholly aside the possibility that there may be also blood contamination from the original patch.

Our discussion of this question is not wholly a matter of curiosity, or, as some might say, of transcendental pathology. A moment's reflection will show that if we credit the original patch with being the parent of the others, it becomes of the utmost importance that it should be cured promptly on its first appearance. Now I have really very little doubt that it does in some sense, and that too in many cases a very strong sense, stand in the position of parent. We will make every allowance for constitutional peculiarity of tissues, but there yet remain many facts which suggest blood contamination as a very important aid. I am thinking now of the many cases which are exceptions to the law of symmetry, and in which the proximity of the secondary patches to the primary one suggests infection by contiguity. Remember also that there is often, indeed usually, a long interval between the local beginning of the disease and its becoming multiple or general, and, further, that not infrequently the general

outbreak is sudden, and apparently independent of any local exciting causes as regards the parts newly attacked. Whenever there is a considerable interval between the first patch and the secondary ones, we are entitled to suspect infection, and this is almost always the case when lupus erythematosus becomes generalised. A few cases there are undoubtedly in which the diffusion is rapid, and which may, perhaps, be placed almost as varieties of Kaposi's disease, for they begin in youth and are very severe and peculiar, implying strongly marked peculiarity of organisation; of these, the boy who sat for the New Sydenham portrait may be quoted as an example. In making this remark, however, I am bound to remind you of the law asserted in our last lecture that the younger the patient the greater the risk of blood infection and multiplicity of lesion. If this be so in common lupus, a disease of but low infective power, we cannot be surprised to see it yet more emphatically marked in lupus erythematosus. It is even possible that in Kaposi's disease itself—efficient as local influences combined with family proclivity appear to be—that there is a share taken by blood infection from the parts first affected.

Leaving, however, for a while the further consideration of cases in which lupus erythematosus tends to become symmetrical, or even diffused and general, I will ask attention to exceptional facts.

A lady whom I have chanced to see this very morning well illustrates this argument. She is an example of erythematous lupus in its non-symmetrical form. She has three separate patches—one in front of the ear, one on the temple, and one on the nose, and they are all three on the right side of the face. The explanation of this I take to be that the parent patch was not in the middle line, but over the ear. The others are, I should suspect, satellites to it, that is, they result from the infection of adjacent parts by germinal material which has travelled from it to them. How else explain the fact of their proximity? Yet I must beg you to observe that there are wide belts of quite healthy skin between them.²

I have entered into some detail as to this feature of distinction between the two chief groups of lupus maladies because it presents considerable difficulties, and is of great clinical interest. I must be much more brief in what I have to say on the other points.

Respecting the tendency to ulcerate, it is certainly true in a general way that in lupus erythematosus it is but rarely displayed, and only to a very slight extent. The more closely the disease keeps to the erythematous type the less is its liability to ulceration. The epidermis may peel, and the discs may show a dirty epidermis or sebaceous crust, but there will be no pus scab, such as is often seen in common lupus. There is, however, destruction of tissue, and a scar will be left when the disease comes to an end, so that, in a certain sense, we must admit that an ulcerative process does exist. As you may see by reference to Hebra's portrait of lupus erythematosus, it sometimes notches the alae nasi. Respecting common lupus, moreover, it is not true that it always inflames and ulcerates. Whilst, then, we accept the liability to ulcerate as a feature which in a general way distinguishes lupus erythematosus from common lupus, we must not push it too far.

That typical cases of lupus erythematosus are never seen in early childhood, and very rarely indeed before the age of puberty, all authorities will admit. Lupus vulgaris, on the contrary, may begin during the first stage of infancy, and is very common during the first decennium. I have already suggested, in connection with this noteworthy difference, that it has to do with disturbances of the circulation which ensue in connection with puberty in both sexes, but more especially in females.

All the statistics to which I have been able to refer, those published by other observers as well as my own, show lupus vulgaris as occurring in almost equal frequency in the two sexes, the female sex always having a slight preponderance. I have already remarked that this is very different in the case of lupus erythematosus.

That common lupus does not show any close alliance with that state of health which gives proclivity to chilblains I feel quite sure, for I have collected a considerable amount of clinical evidence on the point. We must distinguish carefully between any liability to feeble circulation and the liability to inflammatory action under the influence of cold, which is the cause of chilblains. Persons especially liable to cold extremities are often quite exempt from chilblains, and the reverse is also often true. Common lupus goes usually with feeble circulation and a retarded venous current, whilst lupus erythematosus is so frequently in association with the liability to chilblains

² The further facts as to this case. The lady was 46 years of age. The lupus had begun over the right ear three years ago, and, after extending rather widely had left that part, and travelled in front of the ear. The patch on the temple came a year later, and that on the nose a year later still. All were of the mixed erythematous and sebaceous type, being rough and dirty in the middle, and having congested borders. In the middle a thin scar was left. There was a strong history of phthisis in her mother's family, but not in either parent.

that it is often difficult to tell where one ends and the other begins. In close alliance with chilblains you must allow me to place what we may call the sunblain, a much less common condition of inflammation, which is excited by exposure of the part—tip of nose, ears, or cheek, or possibly even the hands—to the direct influence of a scorching sun. Whatever ensues from influences of this kind, should it become chronic, is almost sure to take the form of lupus erythematosus. I by no means, however, wish to imply that a tendency to chilblains is not frequently met with in association with common lupus. The last feature of difference between the two which occurs in my schedule is that common lupus is scarcely ever fatal, whilst lupus erythematosus, if we except its very minor forms, is a condition which should give rise to serious anxiety. Much might be written on this point. I had long been aware that severe forms of lupus erythematosus were liable to end fatally by attacks of erysipelas, intercurrent pneumonia, or some form of acute catarrhal malady; and, in looking up my notes of cases in preparation for these lectures, I have been increasingly impressed with the importance of the disease as a revealing symptom indicative of a state of constitution very likely to prove incompatible with long life. On trying to seek up patients of whose cases I have preserved notes some years ago, I find that in not a few instances they are dead. The cause of death seems to have varied, and in some I have been unable to ascertain it; in some it is said to have been an attack of fever, but in most I believe it has been either pneumonia or erysipelas. In lupus vulgaris we also not infrequently witness attacks of erysipelas, and now and then it is to be admitted they end fatally; but I am sure there is far less danger in this than in the erythematous form of the disease. In some cases of the latter, when it is very extensive, a state of debility and emaciation is induced, which, apart from the liability to attacks of inflammation, itself threatens to end fatally. In very few cases indeed have I ever known lupus vulgaris so extensive as to cause serious interference with health. The liability to end in pulmonary phthisis is, I think, alike in the two, and is a very slight one.

In now concluding what I have to say as to the features which distinguish these two diseases, I am anxious, even at risk of repetition, to say that they are useful rather for the purposes of clinical diagnosis and arrangement than as implying essential differences. I can entertain no doubt that the two are closely allied, and that they are in a general way induced by a similar kind of causative influences. If such an expression be not too fanciful, I would say that, in the lupus family, vulgaris and erythematosus stand as brother and sister, having many essential resemblances and many strongly marked but superficial differences.

In the preceding lecture enough has been said as to the general characters of lupus vulgaris. I have arranged its principal varieties in a number of clinical groups, which may be found convenient, not only for purposes simply of classification, but as facilitating the formation of rules of treatment. It is to be understood that these groups derive their peculiar features, not from any real difference in the disease (which is in all common lupus), but from the part attacked or the age of the patient.

I will now turn to the second part of the Schedule, and briefly describe the several diseases which I have there placed as the principal forms of common lupus.

Under the name struma-lupus we may place cases in which the conditions of cutaneous struma and lupus are mixed. By cutaneous struma I mean an affection which begins usually immediately beneath the skin and affects the latter secondarily. The skin becomes livid, and ulcerates, and ragged sores with undermined borders are formed. This state of things occurs usually without any combination of true lupus. Sometimes, however, we meet with the apple-jelly growth in one part and a characteristic lupus condition, whilst at another subcutaneous abscesses are formed. I am attending at present a case of this mixed kind. The patient is a woman aged 40, with a somewhat tuberculous history. On her right cheek and side of neck are large patches of lupus, whilst lower down in the neck and over the front of the sternum a succession of abscesses have occurred and the skin has ulcerated in the manner described. These cases are not common, and we know that in most cases of lupus there is no tendency to abscesses and but little to gland disease. My notes would, I think, supply almost a dozen cases in which this complication was present, and to them the term struma-lupus seems applicable. In them the lupus patches always tend to inflame and ulcerate early, and there is, I think, almost always a strong history of strumous antecedents. As the disease is a mixed one, so must the treatment be.

Single-patch lupus may be considered as at the opposite end of the chain to that which we have just spoken of. Under that term I group those cases in which from first to last there has never been more than

one single patch of the disease. In such cases the tendency to inflammation is at its minimum, and usually there has been no ulceration whatever. If a lupus patch inflames, the risk of infection and of the production of satellites is vastly increased. In these cases the disease is simply one of quiet growth and slow and painless extension at the edge. The patient is usually in sound health, and it is almost as likely that there will be a family history of cancer as of tubercle. The part affected is almost always the cheek a little in front of the ear. If lupus begins in a part where the circulation is at a disadvantage and the tendency to chill great, as, for instance, the tip of the nose, or the middle of the blush-patch on the cheek, it is almost certain to inflame and prove infective.

In some of these cases of single-patch lupus the disease has been present twenty years or more; as they cause but little inconvenience the patient often declines treatment, and allows the disease to slowly advance. The advance is usually very slow, but the thickness of the jelly-like growth is often unusually great. There is, of course, not the slightest real difference or distinction between single-patch lupus and the multiple forms, the apparent difference resulting merely from the state of the patient's health and the part attacked.

The term multiple, or many-patched, lupus is applicable to cases in which numerous separate patches are produced. I have already explained how this multiplicity is brought about by infection from a primary one. Lupus is always single-patched in the first instance, and sometimes remains so for long, but the risk of multiple infection is always greatest in the early stages. It is greatest also in those who are young. In a large majority of cases lupus is not confined to a single patch, but it is only exceptionally that the patches become very numerous. Now and then a patient may present fifty to a hundred different patches (see the portrait published by the New Sydenham Society). To cases in which the multiplicity is very great the term psoriasis-lupus may seem appropriate, but it is to be remembered that the symmetry of arrangement assumed in psoriasis is rarely present in lupus. The multiplicity may in some instances be so great as almost to defy local treatment.

I may suitably take together the three groups of lupus of hands and feet, necrogenic lupus, and lupus mutilans, for very similar explanations will apply to all three. Common lupus, when it occurs in the hands and feet, assumes, in virtue of the peculiarities in the circulation and the liability to chill, a remarkable tendency to inflame. [A numerous series of drawings taken from various authors were exhibited to illustrate this statement, all showing heaped scabs and extensive ulceration in connection with lupus of the hands.] In most cases in which these parts are affected, an injury has been the starting point. The apple-jelly growth is seldom seen, being always concealed or destroyed by the products of inflammatory action.

The disease would appear to obtain some minor peculiarities in connection with the special kind of irritation which sets it going. The pricks and scratches which those who have to do with dead bodies in *post-mortem* examinations or in dissections are liable to, not infrequently end in a kind of lupus. I believe that Dr. Wilks was one of the first to call attention to this disease, which he described under the name of necrogenic warts. Excepting that nothing of the nature of apple-jelly growth is ever seen, the disease in all respects conforms to the type of lupus. A thickened mass of granulation tissue developed into papillary masses is produced which may heal or ulcerate according to the exposure to cold, season of year, and state of health. Sometimes in the early stages the lymphatic glands may be irritated, but not in the later. The disease is to be cured, as we cure lupus, by liberal scraping or by cauterisation, and it has the same tendency which lupus has, to end, if long neglected, in epithelioma. It spreads at its edge with greater or less rapidity, just as other forms of lupus do.

I have treated many cases of this disease on the hands of my professional friends. It is well known on the Continent, and one of my friends told me that Professor Frerichs, when in London, chancing to see his hands with these lupoid patches on them, took them for an evidence of diligence, and exclaimed: "Ah, Monsieur! vous avez fait beaucoup des autopsies." A man in the garb of a baker once presented himself at the Blackfriars Hospital with this kind of lupus. I remarked to those present that I had seldom seen such hands, excepting in medical men, and he at once said: "Well, I was a medical student once."

I mention these facts in order to make it seem probable that certain minor features of peculiarity distinguish this form of lupus from others, and thus permit its recognition. My argument is that, within certain limits, lupus does derive peculiarity from the special cause which excites it, and that thus necrogenic lupus takes peculiarity from the fact that it originates from scratches or pricks from spiculæ of bone or poisoned needles. Yet it certainly is lupus.

Before leaving this topic, I may just say that I have watched one case in a medical friend in which the lupus has been present nearly forty years. Two or three patches were cured long ago by cauterisation, but one has persisted during the long period mentioned. It is as thick as ever, and just as liable to inflame in cold weather, but it has extended very little at its edge. The case is parallel with those of single-patch lupus on the cheeks.³

The term lupus mutilans might seem appropriate to cases in which the nose has been extensively destroyed and the patient's features much damaged. It has, however, I believe, been restricted to the rare examples of mutilation of the hand which we now and then witness, and of which I now show you a good portrait. (See lithograph, to be given next week.) I have only seen four or five good examples of lupus mutilans. For its production it is necessary that lupus should attack the hand of a young child, and this is not common. When it happens and, the disease being extensive, the fingers are surrounded and universally involved, a sort of arrest of growth takes place, and the most extraordinary deformity results. The fingers may all be lost, or may be dwarfed until only their tips remain. I have never watched such a case from the beginning, nor probably will any good surgeon ever have the opportunity. I am obliged, therefore, to take the histories given by the patients' friends, and, if they may be trusted, these deformities are sometimes produced without any exfoliation of bone.

That lupus mutilans is really lupus is proved by the usual coincidence of patches of ordinary lupus on other parts of the patient's limbs. In a case which was recently shown to me by my friend Mr. Sibley, a young lady had one hand almost in the condition shown in the sketch, and she had also common lupus on the face and lupus of the soft palate. Lupus mutilans is a result of lupus under peculiar conditions, and by no means a variety of it. The remark just made applies also to elephantoid lupus. It is seen occasionally on the lower extremity, and yet more rarely in the upper. The whole limb having been inflamed in connection with lupus and probably with intercurrent attacks of erysipelas, permanent oedema with thickening and overgrowth results. The diagnosis of lupus is made by the discovery of spots of lupus growth (apple-jelly) at the margins of the diseased part of the limb or on other parts, and it is confirmed by noticing that the surface of the diseased part is in a state of scar. I recently saw a good example of lupus with elephantiasis in a lad who was under Sir W. Mac Cormac's care in St. Thomas's Hospital. They are not common.

The subject of *lupus of mucous membranes* is a large and very important topic, but I must deal with it very briefly. It is almost always in association with lupus vulgaris, and not with erythematosis, that we find the mucous membranes affected. Almost always the skin is first attacked, but this is not invariable. I have seen lupus begin on the gums or the palate or in the cheek several times without any like disease of skin. We also see cases occasionally in which disease in the lachrymal sac appears to be the beginning of lupus of the cheek. When lupus affects mucous structures there is usually a very definite history of tuberculous tendencies in the family. It would be impossible to identify the changes which attend it as being lupus, did we not constantly find it in association with lupus of the skin. The mucous membrane becomes thickened, papillary, and ulcerated. There is never anything to be found like the apple-jelly growth. In the mouth the gums may be destroyed and the teeth fangs exposed; the soft palate may also be destroyed and the disease may spread to the larynx. The changes may usually be distinguished from syphilis by noting that the bones are never involved, and that no perforations of the palate occur. It is always a creeping, superficial process. How far the disease may pass down the throat I do not know, nor whether it ever invades the stomach. As a suggestion in that direction, I may remark that several of my lupus patients have died of hæmatemesis. The conjunctiva is sometimes primarily affected.

I have several times diagnosed lupus of the mucous membrane just within the anus, but never, perhaps, under conditions which placed the diagnosis beyond dispute. A syphilitic simulation of it is not uncommon in this part, and often leads to stricture. The exemption of the genitals from attacks of lupus is a very remarkable and well established circumstance. I have no doubt that it illustrates the

influence of temperature in causing lupus. The further the part from the centres of circulation, and the more frequent its risk of being chilled, the greater is the danger that it may be attacked by lupus. Warmth is inimical to the disease. On the female genitals I have scarcely ever seen well marked lupus, and very few have been the instances of it on the penis. The glans penis is not infrequently attacked in tertiary syphilis by a disease which spreads just like lupus. Although, as I have said, lupus erythematosis very seldom affects mucous membranes, yet it does so occasionally.

Lupus of the septum nasi is only a form of lupus of mucous membranes made peculiar by the part affected. It is, however, a rather special affection, and as it is almost constantly mistaken for syphilis, it is desirable to say a few words about it. It usually begins just within the nostril, and a small ulcer forms, which soon perforates the septum. The edge of the ulcer may heal, leaving only a comparatively small hole, or it may extend up to the edge of the vomer. Here, again, we observe the distinction from syphilis, that lupus never produces disease of the bone. These perforating lupus ulcers of the septum may occur without any skin-lupus whatever, but the proof that they are of the lupus nature is found in the frequency with which they occur in association with it. I have shown you a portrait of unusually extensive destruction of the lips and face by lupus, and remarked in connection with it that the young lady was one of the very few cases which I have known in which a lupus patient died of phthisis. Now a sister of this young lady, who had herself no skin-lupus, became the subject of a chronic ulcer on the septum nasi, which was only saved from perforation by free cauterisation. In a lecture devoted to this special subject, I endeavoured to prove that perforating ulcers of the septum, when occurring as the sole lesion, are by no means necessarily syphilitic, being often examples of lupus.

I here conclude what I have to say as to the clinical groups of common lupus. It is obvious that other groups might easily be made, but I believe that these will be found sufficient for practical classification. I now proceed to diseases which depart from the type of common lupus so much as to constitute sub-species, or special forms of the disease. I will take first what I have been bold enough to name *eczema-lupus*.

For clinical convenience I give the name of *eczema-lupus* to cases which look like eczema, but which really are lupus. In some cases an eczematous process seems to have preceded that of lupus, but in others the lupus disease appears to have produced eczematous inflammation. More or less of eczematous or impetiginous inflammation around patches of lupus is not at all uncommon, but it is not these cases which I would claim for the present category. The name proposed should be restricted to cases which in all parts, and through their whole course, have the features of eczema but the tendencies of lupus. This eczematous development may occur alike in common lupus and in the erythematous form, and it may be either dry or moist. The very prolonged duration of the patches, their incurability, their slow extension by infection at their borders, and, above all, the fact that when cured they leave scars, sufficiently prove them to be lupus. Yet it is part of my assertion that the two diseases conjoined in the name are really mixed in the hybrid malady. Now and then the patient has patches of eczema on other parts which do not assume lupus characters.

One of the first cases which I remember as inducing me to employ this name was that of a lad of about 15, who was under care at the London Hospital. His whole neck was involved in a red patch, from which the serous discharge was profuse; it was, in fact, raw over the whole surface. It had been diagnosed and for long treated as eczema. When it was looked at critically I believe that everyone present was convinced that the right name was lupus. It had been present several years, and was steadily aggressive at its edge, which latter was everywhere abrupt. It was causing scar where it was getting well, and a slight degree of contraction was present everywhere.

Another very marked example of *eczema-lupus* occurred in the person of an elderly lady from Durham, whom I saw with Dr. Barron. In this instance almost the whole of one breast was involved in a weeping, abruptly margined patch, which no ordinary remedies could get to heal. Nothing excepting cauterisation did any good, and the patient remained long under treatment and was still not cured when I last saw her.

In another case a rather delicate lady, aged 45, presented dry eczema-looking patches on the left side of the neck and behind the left ear. They extended very slowly indeed, but they never showed any tendency to get well, although they healed in places. No one seeing these patches for the first time would have doubted that they were dry eczema; I can only say that I have seen Miss — once or twice a year for at least eight years on account of these patches, and that

³ Riehl and Paltan (Vierteljahrsschrift für Dermatologie und Syphilis, bd. xiii, p. 19) describe typical cases, and state that in incised portions there are the following changes: (1) enlargement of papillæ and thickening of the epidermis; (2) production of small sub-epidermal abscesses; (3) extensive cell-infiltration into the cutis, resembling that met with in tuberculous (including giant cells); (4) the presence of tubercle bacilli, which are more easily found than in ordinary lupus, but not so readily as in miliary tubercle. As regards treatment, they advise scraping, with application of iodoform.

they have never once been quite well. This is not the history of eczema. Canterisation with the acid nitrate of mercury is the only measure which does real good. Under it the patch on the neck has for some years been quite well, but that behind the ear still persists.

I cannot show you any good portraits of eczema-lupus, for the reason that it is impossible for the artist to portray anything distinctive. Everyone seeing the portrait would call it eczema. It is the history and the clinical course which alone make the diagnosis. I show you, however, three portraits which may be of some slight help. At any rate, they go to prove that the morbid action took on exactly the same characters in three different positions. The patient was a woman named Laura J., thirty-three years of age. She was of healthy family, except that her father suffered from "a breaking out on the skin." She had never had any symptoms of phthisis. As a child she had erysipelas of the leg. Her sister had scrofula badly in the neck, and possibly intestinal tuberculosis. The lupus disease commenced by a patch behind the ear; then followed patches on the left side of the bridge of the nose, and then in the left ear. About two months before I saw her she had a patch form on the right arm, which, after lasting a few weeks, almost wholly disappeared. In the right ear the whole of the concha was affected by a condition which it was impossible to distinguish in any way from eczema. It was ill-defined, slightly congested, and covered with thin scales, and showing several cracks. Behind the ears on both sides there were red weeping patches, which were tolerably well defined, and in that feature differed from the more common forms of eczema. There was also a very slight degree of thickening in the skin which was involved. The disease had been present for several years, and Mrs. J. had been under excellent specialist care in Liverpool. She believed that the word lupus had been mentioned. A cousin of hers was under treatment for lupus. The portraits are not very satisfactory, because the disease partakes more of lupus features than is usual in the pure eczema-lupus, and some may think that they resemble simply superficial and rather indefinite lupus. I believe that I saw the patient only once, and I cannot report anything as to the success of my treatment by cauterisation. It will be seen that the unsymmetrical arrangement of the patches in this case, all on one side of the head, suggested infection by contiguity, and the order and dates of their appearance confirmed it.

The last narrative which I shall trouble you with, is that of a remarkable series of three cases in one family.

A young lady, named S—, has been recently under my observation. Her case is an example of eczema-lupus, of an eruption which weeps like an eczema, but which persists and leaves scars like a lupus. It also shows the lupus process occurring symmetrically on the backs of the hands and nowhere else, and in companionship with a pustular and vesicular eruption on the fingers, repeatedly recurrent and probably allied to chilblains. Further, Miss S.'s case is an instance of lupus occurring as a family disease, for a brother and sister have it also. In her sister it is seen only on the hands, and keeps to the pustular form, but her brother has suffered rather severely from an acne-lupus on his face, and from lupus ulceration of his palate. I have already described his case, and it is one of the best examples of acne-lupus which I have seen. This tendency in three members of the same family to suffer from scar-leaving pustular eruptions on the face and hands, associates the disease, I think, with Hebra's xeroderma (Kaposi's disease). There is this difference, however, that whilst in the latter the disease shows itself in infancy or early childhood, it has not occurred till a much later age in any one of the family now in question.

The S. family are all delicate in the direction of struma, they are tall, well-made, and most of them of a clear thin skin. Miss S., the eldest, is now 22 years of age, of rather florid complexion, with brown hair and eyes. She considers herself in good health, her only trouble being the patches on her hands. She never had common chilblains on her hands, and never with any unusual severity on her feet. About the age of 6 she had scarlet fever, and after it became liable to have pustules and watery blisters form on her fingers. These would come and go without, so far as she remembers, any close relation to season or weather. On one occasion little blisters formed round her nails, and two of the nails subsequently came off. They were reproduced and are now perfect. Her fingers are long and taper, usually warm, and show no trace of capillary torpidity.

Four or five years ago, the patch which now gives her most trouble began to form on the back of the right hand. It varied much at different times, and would often get almost well, and then relapse again; its chief character being a weeping surface, with pustules at its margin. There is now a conspicuous scar, covering a considerable

area of the knuckles and back of the hand, and at its margin are some little dusky ill-developed pustules. Anyone looking at this scar and not knowing the history, would probably declare it to be lupus.

During the last four months, Miss S. has had a patch form on the corresponding part of the back of the other hand; this patch is now of about the size of a shilling, it is red, slightly raised and a little scaly. It is abruptly circumscribed, and would be taken for a patch of psoriasis. She asserts, however, that although at present dry, its usual condition is running moisture. It has been steadily increasing at its edge since it first began, and in spite of many applications. There is at present no proof of scar, but I have no doubt that it is destined to run the same course, unless we succeed in curing it, that its fellow on the other hand has done. I claim to regard them both as patches of lupus, assuming the external features of eczema.

ON SOME NEW APPLICATIONS OF THE INDUCED OR FARADIC CURRENT IN GYNÆCOLOGY.

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TRANSLATED BY W. WOODHAM WEBB, M.D., M.R.C.P.L.

THE gynæcological employment of the induced or faradic current is of French origin, and I may safely affirm that my friend Dr. A. Tripiér was the first to use it some twenty-five years since.¹

It is to be hoped that the new branch of therapeutics will, from the renewed interest it is exciting, soon reveal all its advantages.

A. Tripiér was the first to show that, owing to its contractile powers, the induced current could not only be used in obstetrics, but could be turned to good account in general gynæcology.

According to the views of A. Tripiér all, or nearly all, inflammatory conditions of the uterus arise from either an interstitial or an intra-vascular inertia of the muscular fibre. This inertia, mostly post-puerperal, deranges the circulation, causes congestion and stagnation, and a consequent arrest of the nutrition of the organ. By artificially exciting and re-establishing the circulation, he proposes to attain the double end of cure and prevention. Such is the rôle of faradisation indicated by A. Tripiér, when, in his teachings and practice, he insists upon it as the means of removing the congestion to which he traces the subsequent affections.

In a recent memoir² I have endeavoured to counteract these exclusive views of A. Tripiér, by pointing out what he had overlooked—the preponderating part played by septic influences in gynæcology. I demonstrated the primordial influence of lesions of the mucous membrane, showing that it was from them, by way of continuity, the parenchyma became implicated. I also showed that although the faradic current was all powerful in relieving the early and purely mechanical forms of congestion, as in cases of simple subinvolution, it was, on the other hand, useless in chronic forms, and in lesions of the mucous membrane, that is to say in endometritis. And this might be easily accounted for, since in inveterate conditions of the disease, the muscular fibre, compressed by the new deposit of connective tissue, partially disappears, and consequently the induced current, which is a direct excitant of muscular fibre, finds no sufficient material upon which to act.

On the other hand, when, as is so frequently the case, the mucous membrane only is at fault, it is still more evident that there is nothing upon which faradisation can work curatively. I, at the same time, directed attention to the powerful resource we have under these circumstances, in the methodical application of the continuous current, and noted the leading place it must take in future practice.

While giving attention to the action of the faradic current, I have done my utmost to extend the limits of its application beyond those which satisfied Tripiér.

I will now specify the contributions of this kind which I claim as exclusively my own.

1. I have modified the mode of application³ to which Tripiér has given his name. He had originated the unipolar excitation of the

¹ Hyperplasies conjonctives des organes contractiles. De l'emploi de la faradisation dans le traitement des engorgements et déviations de l'utérus et de l'hypertrophie prostatique. (*Comptes-rendus de l'Académie des Sciences*, Août 1850.) Leçons de clinique sur les maladies des femmes, par le Dr. Tripiér. Paris. Octave Doin, 1883.

² Sur un nouveau traitement de la métrite chronique, et en particulier de l'endométrite par la galvanocautique clinique intra-utérine. Paris, Octave Doin, 1887.

³ Sur la faradisation utérine double ou bipolaire, See *Union Médicale* 28 October and 1 November, 1884; also the *American Journal of Obstetrics*, September, 1881.