

# THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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VOL. LXII.

THURSDAY, JULY 5, 1860.

No. 23.

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## LUPUS VULGARIS.

[Read before the Boston Society for Medical Observation, June 18th, 1860, and communicated for the Boston Medical and Surgical Journal.]

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WHOEVER has taken up a copy of a certain popular work on Surgery, must have noticed a shocking and loathsome picture inserted as a representation of the effects of lupus, which, in connection with the text and the descriptions of the disease in various other English works on the skin, serves to mislead the student, both as to its true nature and amenability to treatment. It is, then, to make known the more charitable views of Prof. Hebra on this subject, and to report a case recently under my own observation, that I now ask the attention of the Society. And first, I think that in this as in many other affections of the skin, we have adopted too readily the lead of English writers, in dividing one disease into several, according to the appearance it presents at various stages of its progress. Take up Wilson, and look at the long catalogue of specific names attached to nearly every disease in the index. We find, for instance, 14 varieties of eczema, 20 of scarlatina, 15 of roseola, 15 of psoriasis, 13 of pityriasis, 16 of pemphigus, 26 of lepra, and so on; nearly all of which are useless, and signify, properly, only stages, or the seat, of one and the same disease. This tends to nothing but confusion and misunderstanding, and is in striking contrast with Hebra's system of classification, which is exceedingly simple and comprehensive.

There are two kinds of lupus, or rather there are two totally distinct diseases of the skin which unfortunately bear the same generic name, and yet have nothing else in common than their seat. These are *L. erythematosus* and *L. vulgaris*. The former, though never healing spontaneously like the latter, is yet a mild and trifling ill when compared with its formidable namesake, but cannot properly be considered in this paper. The true *L. vulgaris*, like many organic diseases, but unlike other cuta-

VOL. LXII.—No. 23

The Boston Medical and Surgical Journal as published by

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neous affections, is very insidious and slow in its approach, and may, in fact, exist for years, even upon the most conspicuous and observed portion of man, the nose, for instance, without attracting the attention either of the patient or his friends. It is only the experienced eye of the physician that sees, in what appears to its bearer a simple nodule of acne or a slight local injection of the skin, the beginning of a disorder far more serious. So unfailing is this unconsciousness, that Hebra makes it a rule always to add four or five years to the time given by the patient as the duration of the disease. Though we may not, therefore, be able to study every case of lupus from its beginning, still we may watch its development quite as well by the fresh centres of disease, which start up anew at all its stages about the periphery of the older growth. We first notice exceedingly minute and scattered points of injection or efflorescence within the skin, which after the lapse of months may protrude slightly above its surface, and assume the form of nodules. These, at first no larger than a pin's head, and few in number, in time become more abundant, and attain the size of a pea or something greater. Sometimes, however, the starting-points spread peripherally to a considerable extent beneath the surface, and then appear like colored stains. Both the spots and nodules are of a peculiar brownish-red color in most instances, and have a boggy or semi-firm consistency, which is very characteristic. When pressed with a blunt point or edge they yield it a ready admission, and bleed slightly. In this state they may exist a long time without betraying their presence by any unpleasant or marked symptom, but eventually some of them approach by growth, and, running into each other, form patches and nodules sufficiently large to attract the attention of the patient. These have a glistening tip, produced by the tension of the epidermis, capped occasionally with minute white, round bodies, which are the remains of former hair and sebaceous follicles, while around them at their base runs a circlet of minute scales. The non-elevated patches have received the name *L. maculosus*; the nodules, large and small, are called *L. tumidus* or *tuberculosis*, while to both the term *exfoliatus* belongs after the desquamative process is set up.

If we make a perpendicular section through the centre of one of these nodules or patches of efflorescence, however small, we shall discover the nature of this change which has been so slowly pushing itself forward into notice. We shall find the corion infiltrated with a transparent matter of dark color, the areoli distended far beyond their natural size with cells or their embryos, and the fibres of elastic tissue relaxed and describing wider arcs. It is, in fact, a new growth of cellular tissue, which holds its seat at first within the corion, spreads peripherally, upwards and downwards, and by mechanical pressure produces an atrophy of all the normal elements about it. The hair-follicles and the sebaceous

glands cease to perform their functions, and, with the papillæ, gradually disappear before the resistless advance of this new life. The epidermis, thrust upward by this vis a tergo, loses its vitality, changes color, becomes dry, and is at last thrown off in the shape of horny scales. Here the diseased action seems often for a time suspended, and an effort at cure set up. The swollen parts sink below the level of the skin, become pale, and present those smooth, white, and lifeless cicatrices or depressions, which, when occurring upon the alæ of the nose, are the cause of the peculiar notched or jagged outline sometimes seen. But we have not seen the end yet. The disease has but died out in parts for want of proper substance to feed upon, which it seeks by invading new provinces hitherto healthy.

Generally, however, having reached this stage of exfoliation, after years of almost imperceptible increase, lupus assumes another phase, and hastens its march. We see little, dry crusts make their appearance upon the red groundwork of the patches, and mingle with the scales of the nodules. These, on examination, prove to be mixtures of pus and blood, and before long the whole epidermis cracks, yields, and the disease breaks forth into the light. The exposed spots are soon covered again, however, with thick crusts composed of blood, pus, epithelial cells, and masses of red pigment matter; the under surface of which is bathed and moistened by a limpid fluid secreted by the foreign tissues, at times of a red or green color. Beneath these crusts, and beneath the corion, its starting point, we find the disease still at its work of destruction. The cellular growth pushes downward through the subcutaneous tissues, through the fat, and muscle, and cartilage even, crowding all before it, till it reaches bone; where, unlike malignant disease, its further course is stayed. With all this loss of substance, which results not from ulceration wholly, but from oppression and consequent atrophy, there is the new growth constantly increasing to take its place, so that on removing one of the thick crusts we find its under side marked with elevations and depressions, which fit exactly into corresponding depressions and elevations of the diseased surface; the points of new growth, in fact, shooting up from the clefts of decay. In these interspaces lies the pus, which is not, as has been supposed, a product merely of the ulceration of the normal tissues, but is a retrograde metamorphosis of the new-formed and superabundant blastema. This stage bears several names, among which are *L. phagadenicus*, *exulcerans*, *rodens*, *vorax*, *edens*, *noli me tangere*, &c.

Generally, the efflorescence spreads widely in the corion, while within the centre of the patch the new growth extends deeper with the lapse of time, and fresh isolated points make their appearance about the original seat. Thus we may have the whole nose and cheeks covered with a thick crust, and the surrounding skin studded with the knots and granules of more recent growth. In this

later stage, too, we may have the formation of cicatrices, but unlike those of the earlier, already described, they are dense, rigid, and corrugated. They resemble the others, however, in being themselves the seat of fresh lupus growth, and in being lost again in the general mass of disease. Finally, there comes a time when cicatrices begin to form at the centre, which are permanent. About their convex edges the disease still spreads slowly outwards in a circle, but in its progress it is eventually overtaken and checked by the more vigorous growth of the cicatricial tissue. This is *L. serpiginosus*, the latest form of development, and the end to which every case naturally tends. Every case of lupus may, then, in time heal of its own accord, but nature requires long periods, and leaves traces of her handiwork in lasting scars, which often cause frightful disfigurement, and resemble closely the effects left by serious burns.

Lupus chooses its seat most frequently on the nose, cheeks and lips, on the forehead, occasionally over the joints—as the shoulder, elbow, knee, and back of hand—and in extremely rare cases it may affect the whole skin. Of all these it seems to prefer the septum of the nose as a point of attack, which it first destroys, and from which it spreads to the alæ, cheeks, and lips. It causes no subjective symptoms whatever in its earliest stage, and even its ulcerative process is productive of very slight pain.

*Ætiology.*—Lupus is a world-wide evil. No nation, rank, sex nor age is free from it. It visits the rich as well as the poor, the strong as well as the weak. Hebra says it is never developed in an individual in whom it has not shown signs of its presence before puberty. Even when severe, the constitution and functions of the patient may continue unimpaired, for it is a strictly local disease. All attempts to seek its origin in a syphilitic or scrofulous taint rest upon unsubstantial grounds. The proportion of lupus patients affected with phthisis or other signs of tuberculosis is very small, and acquired syphilis never produces it in an individual. With the congenital products of this poison we do find lupus sometimes associated, and with cancer too, but then we find it far more frequently in children whose ancestors have never been syphilitic, which is enough to show the fallacy of such assumed connection. This error has arisen from an imperfect acquaintance with the serpiginous stage of lupus, which resembles in its centrifugal spread and central scar formation so closely the usual development of the syphilitic serpiginous ulcer, that the greatest attention must be paid to every concomitant circumstance to distinguish at times between the two. When we remember also that in the end every case of lupus may become serpiginous, we can readily understand the supposed identity of the two diseases. In its stage of exfoliation, too, the likeness which the scale-covered and dull-colored nodules bear to a syphilitic psoriasis is very strong, and obscures the diagnosis. Generally, however, a faithful consi-

deration of its seat, local character, slow course, peculiarly hard, and, at the same time, yielding structure, and later the destruction of parts, accompanied by hypertrophy or new growth, is sufficient to mark lupus so strongly that it can hardly be mistaken.

*Treatment.*—Lupus being a local evil, requires local treatment. This is the rule. Hebra has found, however, after years of careful study of this disease, and no man has had opportunity so vast, or improved it so successfully, that there comes a case, now and then, which resists the most energetic local treatment, but which gradually yields before internal remedies. Especially is this the case when it has assumed the serpiginous form. It is now his custom frequently to combine the two, relying, however, almost wholly upon the effect of external caustic applications. Of these, a long list presents itself, the properties of which have been made the object of long-continued, special experiment in his department of the Vienna Hospital, where from fifty to sixty cases of lupus are treated in the course of a single year. They all act by destroying the new and morbid growth, and by substituting healthy granulations, and I believe I cannot do better than to give here that portion of his clinic which states in a condensed form the results of these investigations.

Of the various acids, the sulphuric, nitric, hydrochloric, acetic, &c., the nitric is by far the most available, and must be used in its pure and concentrated form. With it, Hebra was formerly in the habit of cauterizing freely, where a superficial action only was required, but at present uses in its place the iod. glycerine. Sulphuric acid must be left entirely out of the question, for one can never know beforehand how deeply its action may extend. It destroys the tissues, by uniting chemically with the water they contain, and thus carbonizing them. Its effect, depending upon the amount of water the diseased elements contain, is therefore various, so that at times a small quantity of the acid destroys to a large extent, and vice versâ. Another objection to sulphuric acid is the frightful scars which result from its use, and which no other caustic applications produce. They form the so called false cheiloid. Hydrochloric acid has the unpleasant property of continually generating chlorine gas, which is especially undesirable in lupus, where the face is the part most frequently to be treated. In combination with other caustics, as the chloride of zinc, it may occasionally be used, but otherwise not. Concentrated acetic acid is a much weaker preparation, and is of excellent service when we wish to destroy epithelial growths. It must be applied, as all the above, by means of a pencil made of lint. Solutions of nitrate of silver, if used, must be as concentrated as possible, one drachm to fifty-five grains of water. Caustic potash must likewise be dissolved in one part to two, or in equal portions, of water, but is only applicable in lupus erythematosus, and even there, in regard to its effect and the form of its scar, must rank lower than the iod.

glycerine. R. Iod. pur., potas. iod., aa  $\frac{3}{4}$  ss.; glycerine,  $\frac{3}{4}$  i. M. This is his favorite liquid remedy, and is applied in a thin coat by a camel's hair brush. In lupus vulgaris it is seldom used, but in lupus erythematosus it may be considered a true specific. Dupuytren introduced an ointment composed of arsenious acid, two grs.; calomel, one gr.; lard, two drachms. It is spread upon a piece of linen cloth, and applied once or twice daily for three or four days. In a short time a black scab falls off, and the process is to be repeated till cure results. In place of the old pulvis cosmi and ung. helmundi, two arsenical preparations for a long time used in Germany in the treatment of lupus, Hebra used a modification of the following composition. R. Arsen. alb., cinnabar. factitiæ præparat., aa  $\frac{3}{4}$  i.; axung. porc.,  $\frac{3}{4}$  i. M. This salve is spread thinly upon a piece of linen, and laid, for instance, upon an epithelial cancer. In half an hour the pain begins, and continues to increase. This application is repeated once daily, till the parts with which it is in contact become black, when it is omitted and an ung. simplex used in its stead until the black crust comes away. This remedy has the disadvantage of never producing an equal action, so that one is often obliged to apply it repeatedly to the raw surface, an operation to which few patients will submit. In these days, however, the local use of arsenical preparations has fallen into general disuse, and with good reason, for no restoration of the lost parts follows their action, and the physician must wait until granulations form before he can see whether he has attained his object or not. In this same category may be placed the deutiodide of mercury, which, used in form of an ointment, one drachm to the half ounce of lard, is an intense caustic, but like the above, very uncertain in its action. To the caustics which are used in the form of paste, belongs the Vienna salve. This must always be prepared extempore, and in the following manner:—Equal parts of caustic lime and potassa are reduced to a fine powder, mixed, and rubbed up by means of alcohol slowly added till they form a paste of the consistency of an ointment. If too thin, it flows freely, and may come in contact with parts which do not require its application. The neighboring parts are to be protected by strips of sticking plaster, and the paste is to be spread in a thin layer over the surface, and covered with lint. At the end of ten or fifteen minutes, the patient is sent to a warm bath, if the part under treatment admits; if not, a warm cataplasm is applied, and the pain, which resembles that produced by a live coal, ceases at once. The surface becomes covered with a black crust, which is to be kept moist with warm water till it falls off. The chloride of zinc paste is made by union with twice its quantity of meal, allowed to remain in contact with the tissues four hours, and then removed according to the above method. The Landolf salve, which is of excellent service when the lupus is circumscribed in its spread, is composed, according to Hebra's formula, of the following

substances:—Zinci chlorid., 3 i.; antim. chlorid., 3 ij.; bromi chlorid., 3 iij.; aquæ, q. s. ut f. pasta. This is smeared thickly over the diseased spot, covered with lint, and allowed to remain until the slough drops off. To these pastes belongs also the solutio plenikii, which consists of fifteen grains each of corrosive sublimate, alum, white lead, and camphor, and an ounce and a half of alcohol and vinegar. Hebra takes equal parts of all six, by the mixture of which a white paste is obtained and a portion of fluid, which last is thrown away. As a caustic application in various new growths of the skin, there is nothing better, especially in condylomata. In lupus, however, he found it of little benefit. Caustic potash in solid form, is, of all, the most violent in its action, and its effect. Even when applied hastily and with care, it is very uncertain, permanent, and penetrating. Sulphate of copper is admirably adapted to the destruction of granulations, and its action on the excoriated patches of lupus is often highly beneficial.

But of all remedies for lupus, the anhydrous or stick nitrate of silver is incontestably the best, and the best in every case. It can be trusted in the hand of any one, however inexperienced in the treatment of the disease, and cannot possibly do harm, because it is held in complete control, and because the sound tissues are very little if at all affected by its contact, while the diseased parts may be thoroughly pierced and penetrated to their very bottom. It is not enough, however, as is often done, to apply it to the surface merely, but a sharply pointed stick of the material set firmly in a quill must be taken, and thrust boldly down to the limits of its penetration. In the beginning of the treatment it is well to apply the caustic thus several times, at intervals of 3 or 4 days, till we obtain a smooth, even, suppurating surface. Arrived at this point, the process must be repeated twice a week, after which once will be sufficient. The scars which result from this treatment are the fairest and finest of scars. Those who have been fortunate enough to witness the operation of this remedy in Prof. Hebra's hands, will sustain me in saying, that the success achieved is most brilliant and certain. They will also bear witness that the thoroughness he insists upon in its application, is most faithfully carried into practice by himself; for a stranger seeing him for the first time at this work, would be of the opinion that he was trying to punch holes in the bone, regardless entirely that any such tissue as skin lay between it and the sharply pointed weapon employed. It is not so painful, however, as it looks, and the boggy nature of the disease easily admits of its entrance.

Two other methods have been at times employed to destroy lupus, viz., the actual cautery and the knife. Of these the former can scarcely be recommended. Its use would only be allowable in circumscribed patches, where a single application might be sufficient, but even here some one of the various pastes would have the

same effect without leaving behind an ugly scar, and without running the risk of injuring more parts than those diseased. As to the knife, little need be said. When we remember that lupus usually affects the nose, or spreads in broad patches over the skin, we see how seldom it could be used with advantage. If we had a long and narrow strip of skin implicated, on the cheek for instance, we might with two parenthetical incisions effect in a minute what would otherwise be the work of weeks; but such cases are seldom met with, and recurrence is quite as likely to follow its employment as any other treatment.

As above stated, a case will occasionally be met with, which will resist the most faithful use of nitrate of silver. Again, lupus may in some cases be healed by the administration of cod-liver oil alone, but only after many months can this improvement be looked for. The proper way, therefore, is to combine the local with internal remedies, when occasion seems to demand the latter, and for this purpose nothing is so good as cod-liver oil. It is needless to give it in such large doses as the French recommend, or so freely as it has been used among us here in phthisis, for it has been found that the digestive system refuses to take up more than a certain amount daily, and that when more than three ounces are taken the surplus passes off with the *fæces* unchanged.

JUNE 18th, 1858.—A woman doubly veiled came to me, and gave the following history of herself. She was a native of Prussia, 30 years old, married, and had two children. Her parents were healthy peasant people, and she herself had always been well until 5 years previously, when she for the first time noticed signs of lupus growth upon the right side of her nose. The disease was badly treated for a long time and spread quite widely, but by the subsequent use of nitrate of silver it entirely disappeared, after a duration of a year and a half. Shortly afterwards, she came to this country and settled in Boston, but had been here scarcely a year before the disease again made its appearance on the face. She placed herself under the care of a homœopathic physician of this city, and remained under his treatment for more than a year, when finding that the disease was too much for him, and that the sums of money, contributed in her behalf by the catholic community of which she was a member, were exhausted, he gave up, and sent her to a certain famous cancer quack. He seems to have used electricity, but finding herself no better, she left him after a short time, and became by chance a patient of mine.

The disease at this time covered the greater portion of the right cheek, from the eye to the edge of the mucous membrane of the upper lip, the whole of the nose with the exception of the left nostril and the bridge between the eyes, and a portion of the left cheek. This was one continuous mass of thick crust, from beneath which pus might be made to ooze by pressure. In addition, there were several other patches upon the left cheek, raised above the



surface, of a dull red color, and covered with thin scales of epidermis. The integuments of the face were much infiltrated, and altogether she was a pitiful object. The voice was much changed, owing to the obstruction of the nostrils and the action of the lupus upon the septum and internal nares. She had been losing flesh and strength for some time before I saw her, and on examination the lungs gave the usual signs of the early stage of phthisis.

Treatment was begun by fastening a stick of nitrate of silver, two inches long, firmly in a quill holder, and pointing the same by boring into a wet sponge. Its sharp tip was then introduced beneath the edge of the crust, and thrust boldly on beneath it in every direction, till it was completely torn up and removed. A bare surface then became visible, which showed for a moment the peculiar growth of lupus, and then became covered with a white film. The bleeding was checked by means of lint, always to be kept at hand for this purpose. The younger patches or nodules were sounded to their bottom by pushing the point, which keeps itself always sharp, perpendicularly in till considerable force failed to make it penetrate further. The patient was then advised to make cold water applications during the day, by which the burning and swelling are allayed. On the 20th, two days afterwards, she came again. In place of the thick crust, which had formerly covered the diseased portion of the face, was seen a thin, black one, composed chiefly of dried blood. This was again removed in the manner above described, and the tissues beneath bored deeply into, in all directions. After this the applications were made less frequently, and finally once a week until every vestige of the disease was removed. On Sept. 15th, two months after beginning of treatment, the face was shining and red, but no trace of lupus remained, except high up within the nasal cavity, where the proper application of the caustic was difficult. It was thrust fearlessly up, however, though blindly, feeling assured that no injury could result. By December, this was overcome, and her face was nearly as fair as before the disease showed itself.

Having thus conquered the disease by local treatment alone, attention was directed to her pulmonary disorder, which since then has gone on increasing in severity up to the present time. In the meanwhile, however, she has passed through the various changes belonging to maternity, and been reduced at one time to an extreme state of emaciation, but no sign of the cutaneous affection has re-appeared.