

CLINICAL LECTURE

ON
DYSIDROSIS

(AN UNDESCRIBED ERUPTION).

*Delivered at University College Hospital, London.*By TILBURY FOX, M.D. Lond., F.R.C.P.,
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GENTLEMEN,—I am desirous to-day of directing your attention to a disordered condition of the sweat-follicles and the sweat-function which you will not find described in books. In fact, I shall depict to you for the first time a disease of the skin which is, as a rule, diagnosed as eczema, but is a separate and distinct affair. I will, in the first place, read to you the notes of a case which has recently been under our notice amongst the out-patients.

Mrs. E., aged 36, came to the hospital on May 27th with her child, who had ringworm; and she showed on the back of the left hand a patch which had all the appearance of being ringworm. She was ordered some mercurial preparation, and returned on the 30th with the hand in an inflamed state, but the ringworm was well. She then made a remark about herself which led to a closer examination of her case. It appeared that about Christmas she noticed a little itchy pimple at the back of the ring-finger of the left hand, and presently a circle of little bladders developed round about this pimple. The disease was very irritable, and had never really gone away since Christmas. It never increased much until a fortnight ago. The mercurial application seemed to cause its spread. She always noticed a tendency in the eruption to spread, and the hand felt hot and irritable after washing.

The general health is good; but the woman feels "so very weak that, if she goes to scrub or sweep a floor, she trembles very much, and is obliged to sit down and eat a crust and drink some porter; and then she can get on." If she is much upon her legs, she soon tires, and the legs ache. She often has sick-headache. In the recent cold weather, if she began to work, she "used to get into a great heat, as on a summer's day." After eating, she flushes, and generally feels sick. She is almost always perspiring, and especially of late. Whenever she changes her clothes, even in the coldest weather, she is always very damp. Her feet are always cold. She is suffering from menorrhagia. For the last two years, she has been generally unwell every fortnight, "and very much so for two or three days." She never gets a good night's rest; is "always working, or travelling, or sending up a large dinner, or something of the kind, in her sleep." She often wakes up suddenly in the night, startled, fancying she is jumping or flying, or leaping off heights, etc. She is not hysterical, but is very "nervous". She suffers also from a tight pain round the waist at night; but this appears to be due to flatulence. The bowels are very obstinate indeed.

Present Condition.—Both hands and arms and upper arms are affected—the hand and arm to which no mercurial ointment has been applied, on the left side, equally with those of the other side. There are scattered papules, which, on close examination, are seen to be in reality vesicles; and also very distinct vesicles, of the size of millet-seeds—some of them having a red base, and in some cases being crowded together in little groups, more or less scattered all over the backs and sides of the fingers, and the back and front of the hand, and the whole forearm (back and front), and the arm up to the shoulder, especially its inner aspect. In some cases, the vesicles have run together, so as to form minute bullæ; on pricking these bullæ, a drop of very clear fluid exudes, and it is alkaline. Between the fingers, the cuticle is in some cases raised slightly by a layer of fluid beneath. It is white and macerated, especially at the web of the fingers; and the fluid is faintly acid; it is also offensive. There are no crusts anywhere. On the palmar aspect, there are scattered isolated vesicles about the fingers; and towards their tips a number of minute transparent points, resembling sago-grains, are visible under the skin—some thirty or more. These points are not raised, but are seen through the cuticle, and are clearly sweat-follicles distended by sweat. The front of the forearm appears as if it were the seat of diffused eczema. Over the palm of the hand itself, there are transitional stages between the solitary vesicle and the macerated patch. For example, about the root of the fingers, and extending across the whole palm, is a band, an inch wide, of macerated cuticle, upraised by clear fluid beneath, and looking like a piece of very thin moistened chamois leather of light colour, or wet parchment; and this runs up a certain

way along the outer boundary of the hand. Next comes a line of cuticle upraised by clear fluid, and situated nearer the centre of the palm. It is half an inch wide, of transparent aspect, and fluid can be let out from beneath. Next come groups of vesicles; and, lastly, isolated vesicles; and those along the inner side of the little finger are like tapioca-grains. On the right side, at the ends of two of the fingers on their palmar surface, there is an appearance as if there were boiled sago-grains beneath the skin; and this is found to be due to distended sweat-follicles filled with sweat, and seen through the cuticle. If one of these transparent places be pricked, clear fluid oozes away from it. Towards the base of the fingers, there are groups of distinct vesicles, themselves separate the one from the other. At the junction of the fingers with the palm of the hand, there are white patches of the size of sixpences on two fingers, formed of uplifted and macerated cuticle. On the forearm, over its front, are scattered vesicles on a red base; and here and there little red points, that look like red papules; but these are vesicles whose contents have dried up without rupture of the cell-wall, or abortive vesicles.

Now it is to be observed that there are no crusts; and the fluid contained in the vesicles remains perfectly clear until it dries away or escapes, when the cuticle shrivels and peels off: or until it macerates in certain places the cuticle.

It is not difficult to trace the stages from one phase to another. First, the sweat-follicles are distended, *and are not raised*; but are seen through the cuticle. Then, as the collection of sweat increases, there are distinct vesicles with very transparent contents; these vesicles may run together if the outpouring of sweat continue; and, in cases where the secretion is excessive, very large bullæ indeed may form. Presently the cuticle becomes macerated in some places; and white patches, formed of uplifted cuticle, are produced. In this case, there was a very offensive and sour odour perceptible about the hand or arm.

The patient complained greatly of burning pain about the seat of eruption. She states that she once had the shingles severely and painfully, and that the smarting and burning she feels with the present disease are of the same kind. The eruption has shown a tendency to appear about the face and legs.

REMARKS.—If you have followed my description of the case, you will have no difficulty in appreciating the nature of this disease. Its anatomical seat, as seen in the earliest stages of the disease, is clearly the sweat-follicles. The vesicles result from distension of these follicles by sweat, which, on examination, is not found to bear any resemblance to the fluid exuded in inflammation; nor does it contain pus, or give place to crusts. The bullæ are formed by the coalescence of vesicles; the papulæ, by the abortion of vesicles; the white patches of uplifted cuticle, by the maceration of the latter by sweat, which becomes, from the access of air, acrid and sour.

Now, at first sight, this disease looks like an acute eczema; but it is not so, though the acrid sweat may so far irritate as to excite an eczema. Do not forget this. You will have observed that this disease does not begin as a serous catarrh of the papillary layer, as does eczema, but by distension of the sweat-follicles. When there is no sero-purulent discharge about it, the fluid in the vesicles remains quite clear so long as it is confined; and during the whole course of the disease there is no crusting. It is altogether unlike eczema with its sero-purulent discharge, stiffening linen, and drying into thin yellow crusts.

The disease may look like erythema papulatum, but only in so far as there are abortive vesicles present; and these clearly do not constitute the chief feature.

The disease varies greatly in extent and duration; it may happen that one or several successive outbursts of the eruption occur, and the disease may last a week or ten days, or several weeks if there are successive outbursts. The case which I have described is a very marked one. In some cases we have a few little flattened itchy vesicles, about the sides of the fingers, succeeded by a drying up of their contents, and a mere peeling off of the cuticle. In some cases the feet are affected, and then we have between the toes, especially at the junction of the toes with the foot, small white patches, produced by uplifting and maceration of the cuticle by acrid sweat. These cases are confounded with, and always called, eczema. There is oftentimes a great deal of very troublesome itching, especially at night, and patients complain of it bitterly, as it is excessively annoying, and disturbs them from getting a fair night's rest. In other cases we have the whole foot affected, in others coincidentally the hands and feet, or the face and arms. I have noticed in gouty subjects, that the disease is intensified in severity, I suppose on account of the irritable character of the blood.

The disease, gentlemen, is not described in books, since it is always regarded as eczema, but I have explained to you that it is wholly unlike eczema. The resemblance is accounted for by the fact, that in both dis-

eases there are vesicles which are crowded together, but the character of the fluid uplifting the cuticle, and its subsequent behaviour, the source of this fluid, the anatomical seat of the disease, are wholly and entirely different. The disease is not the hydroa of Bazin, under which term a host of different things have been classed—urticaria bullosa, erythema papulatum, miliaria, and the like.

Of course, in many diseases, excessive sweating occurs, as in the case of idrosis, miliaria, and sudamina; but then the sweating is only an accidental feature, and accounted for by the general disturbance; but in this disease, the sweat-disorder is the main and sole disease present. But I have noticed that it always occurs in those who too freely perspire, in those who are depressed, weak, and get quickly exhausted, and in connection with, oftentimes, anomalous nerve-symptoms. The cause of the sudden outpouring of sweat is doubtful. It is, probably, some disturbance of the nerve-influence.

Now as to treatment. It is of no use trying to cure the disease by local measures, though you can moderate the irritation, and inflammation, and prevent the sweat from becoming sour and irritating. The internal remedies are diuretics, with a view to relieve the skin, with large doses of quinine and nux vomica. Locally, I cover up the parts in the acute and early stage, with some simple cerate, with liquor plumbi, rubbed into it, and perhaps carbolic acid, in small quantity. Then, later on, I coat the parts with starch and calamine powder, and later on prescribe the balsam of Peru, twenty grains to an ounce of lard, with a little white precipitate. Most cases do well. In the simpler instances of the disease you give the quinine internally, with arsenic if you like, and diuretics if need be, and locally protect the parts with calamine lotion.

I have termed the disease dysidrosis, because nature seems to have a difficulty in getting rid of the secreted sweat, which remains to distend the follicles, and to macerate the tissues. The disease is nothing more than retention of sweat and its results. Dysidrosis bears the same relation to the sweat-glands that acne does to the sebaceous glands.

RARE CASE OF EPISPADIAS (WITHOUT EXTRO-VERSION OF THE BLADDER), AND ACCOUNT OF OPERATION.*

By G. LICHTENBERG, M.D.,

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T. B., aged 9 years, presented himself in January, 1872, at the German Hospital, with the following malformation of the penis. The urethra was entirely deficient at the upper part, from the os pubis down to the glans, presenting merely a slight groove lined with mucous membrane, and leading at the symphysis pubis, which latter part was not divided, into a wide infundibulum, through which, during narcotisation of the patient, my little finger could be easily introduced into the bladder. The distal half of the glans was not divided, but also at the same time not perforated, nor were any traces of the meatus to be seen, while the other half was bifid. The whole penis, of a very diminutive size, was in the natural condition, drawn upwards, with a slight tendency to the left side, towards the abdominal walls, and withdrew, in the recumbent position of the patient, the infundibulum almost from view, though it would not prevent the urine from continually dribbling away, even if the patient were in this position. The prepuce, as usual in these cases, of comparatively large size, was hanging down apron-like from the under portion of the malformed glans. Both testes were in the scrotum, and I noticed once an imperfect erection at the beginning of the narcotisation. The bladder seemed to be fully developed, although, on account of the constant dribbling away of the urine, of an extremely small size; but it decidedly gained during the different operations, which were afterwards performed, more power of retaining the urine. Around the infundibulum one could notice some small folds of the skin running in a convergent direction towards the orifice, and the finger had to overcome a certain resistance before it could be fully introduced into the bladder.

In order to improve this truly miserable condition of the patient, I endeavoured to follow Professor Thiersch's ingenious method, for the first time practised by him with good result in 1857 and 1858; but, in consequence of several failures, I had to employ partly another method in order to accomplish my object.

The whole operation had to be divided into four distinct acts: the first comprising the formation of a canal through the distal half of the

glans; the second, the transformation of the groove of the second half of the glans into a regular canal, communicating with the newly formed one; the third act had for its object to transform likewise the groove from the glans up to the infundibulum into a canal; and, lastly, the fourth act comprised the covering of the infundibulum itself.

1. The formation of a canal through the distal half of the glans penis was easily accomplished with a small trocar, and the canal was then widened with the galvano-caustic wire.

2. To transform the groove of the second half of the glans penis into a regular canal, I made on each side of the groove a longitudinal incision through about two-thirds of the thickness of the glans, giving a convergent direction to the incisions, viz.: the two incisions would have met at one point, if they could have been lengthened to the proper extent. I then pared, to the outer side of these two incisions, the surface to a certain extent, and brought together the two raw surfaces over a catheter with some fine sutures. The catheter was directly afterwards removed. Perfect union took place.

3. In order to transform that part of the groove which was lying between the glans and the infundibulum into a canal, the following operation was undertaken. I made, near to the right edge of this groove, a longitudinal incision through the skin, and at both ends of this likewise a small transverse incision was made, running outwardly; and this flap, thus marked out, was carefully dissected off. After this, a similar flap was formed on the left side of the groove, but with this difference: that the longitudinal incision was not near the groove, but at some distance from it, and the two small transverse incisions at both ends of this had a direction towards the groove instead of from it. This flap, after having likewise been carefully dissected off, was then turned over like the leaf of a book over the groove, and the flap of the right side stretched over this; so that the two raw surfaces were attached to each other, and the epidermal side of the under flap had its aspect towards the groove. The whole was fixed with fine silk sutures.

This operation, however, did not succeed, for the flaps sloughed almost entirely, and I therefore, at a later period, had to submit the same part to another operation. For this purpose, I made use of the very large prepuce by making, at a little distance from the glans, a long transverse incision through the whole thickness of the prepuce, large enough to enable me to pull easily the glans through this buttonhole, and fixed then this part to the base of the glans previously pared. I afterwards, but not on the same day, used this part of the prepuce, which meanwhile had become firmly attached to the glans, as a means to form the upper wall of the urethral canal, which I intended to do by the former operation, but had utterly failed. In order to accomplish this, I pared, on both sides of the urethral groove, the surface to a great extent, and likewise the upper surface of the prepuce, which, by being turned over, had to cover the urethral groove, but, of course, taking care to leave through the entire length of the prepuce a broad strip, which was intended to form the actual upper wall of the urethra untouched by the knife. The flap was then fastened to its position with sutures, and union took place everywhere, although the parts themselves were continually bathed in urine and no precautions whatever were taken to prevent this.

4. To cover the infundibulum, two flaps were taken from the abdominal walls near the infundibulum, in order to cover this part. The first one had almost a triangular shape, and was turned over in such a manner that the infundibulum was covered by its epidermal side; the second flap was almost of a quadrangular shape, and was destined to cover the triangular flap, the raw surfaces touching each other. Both flaps thus united were fastened to the previously pared margin of the original prepuce, and thus a perfect canal was constituted from the glans up to the bladder. After this operation, a catheter was constantly kept in, but, notwithstanding this, sloughing set in to some extent at the left side, and although it did not frustrate the whole operation, nevertheless no union whatever took place between the doubled flap and the margin of the original prepuce; two more operations had, therefore, to be performed in order to carry this point. There now merely remains a fistular opening, or, I might even say, a second meatus urinarius, between the two halves of the glans, which, until now (as the last operation was only performed quite lately), I have not felt it advisable to close; but this I hope to do very soon, and I daresay it will be easily accomplished.

The patient is already able to retain, in the recumbent position, a certain quantity of urine, and will then pass it, partly at least, in a good stream; and, even in the upright position, there is not the continual dribbling of urine going on as formerly. I intend to supply the patient after a while with a truss-like instrument, in order to enable him to retain the urine longer, and am in hopes that in time the power of the bladder may still increase; which improvement, to a certain extent, has already taken place.

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in London, August 1873.