REMARKS
ON
TWO CASES OF KELIS.

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IN the thirty-seventh volume of the 'Transactions of the Royal Medical and Chirurgical Society,' there is a paper by the late Dr. Addison, on the "Keloid of Alibert," and on the form of kelis which that distinguished physician considered to be of a distinct character, and which he designated "true keloid."

Within a short period two cases of kelis have come under my care, at Fort Pitt, Chatham; the one presenting the appearance of the fibrous tumour classed by Dr. Addison as the "keloid of Alibert," the other offering so very striking an example of what he described to be "true keloid," that I have thought some brief reports of these cases of this rare disease, with the accompanying drawings and casts, might be of interest to the Fellows of the Society.

The first case which I have to notice answers the description of the "keloid of Alibert," or rather of that form to which Alibert, as Dr. Addison mentions, himself applied the term "spurious or false keloid," in consequence of the disease being developed upon a cicatrix, and not appearing

spontaneously. Among other exciting causes incidentally mentioned in the paper by Dr. Addison, is the cicatrix resulting from the infliction of the punishment of flogging. This case presents an example of the disease following that exciting cause; but, at the same time, the very slight nature of the punishment in this instance, and the appearance of spots of a similarly diseased character in other parts of the body, sufficiently attested the fact of a pre-existing constitutional tendency to the affection.

The following is the history of the case referred to :

Private J. E—, 41st Regiment, æt. 24, born in Shropshire, employed previous to enlistment as a labourer, a man of good health, though of rather intemperate habits, was flogged at Devonport, on the 19th of September, 1859, for disgraceful conduct, and received fifty lashes. He received nearly the whole of the lashes on one spot, namely, upon the skin over the supra-spinous fossa on the left side. Staff-surgeon Donald writes—"The corporal punishment inflicted on Private John E— was light, and there was very little laceration of the skin." He was nearly one month in hospital after the flogging, but was chiefly under treatment for "gonorrhœa." He then went to duty, but when he carried his pack the pressure of the cross-belts against the cicatrix caused itching and uneasiness. About three months after the punishment, during two months of which period he had been wearing his belts and pack, he first noticed a growth from the cicatrix, which gradually increased from the size and shape of a small, round tubercule, to a large, flat mass, nearly as large as a man's hand. There was not any amount of pain from this growth during its formation. He states that none of his family were subject to tumours of any kind, to his knowledge.

Condition noted on his admission at Fort Pitt, on the 22nd of June, 1861 :—"He is a very tall man, of strong-looking frame. On the left shoulder, commencing about an inch from the spine, and covering the whole of the supra-spinous fossa, is a flat tumour, or elevated patch of

hypertrophied tissue, about the size of the palm of the hand. It was upon this situation that the man received the flogging. The mass in its longest diameter is five inches, and its greatest breadth is three and a half inches. Its thickness seems to be about one inch. The tumour is of a flesh colour, pinker than the skin, particularly smooth to the touch, although marked by small pits, and puckered by several deep, furrow-like depressions, from the bottom of which a few hairs spring. The circumferential margin of the patch is irregular in outline, from being deeply indented at various points. On the front of the patient's chest are several very small tumours, evidently of the same nature; these first appeared as small spots of acne, but he cannot remember the date of their first appearance.

"He says he never had syphilis.

"The tumour is irritable and tender if subjected to continual pressure, the tenderness, however, not amounting to actual pain; it is also sensibly affected by the occurrence of damp, and other changes of weather.

"Its appearance on the breast, as well as on the back, shows such a tendency to the development of the disease, that operative interference is considered inadmissible."

This patient was manifestly unfit for service as a soldier, from being unable to wear his belts or carry a knapsack, and was, therefore, discharged as an invalid. He proceeded to Leominster, as his place of residence.

It may be worthy of mention that Professor Maclean informs me that two cases of kelis have come under his notice, in each of which the disease had its origin in flogging. One of these occurred in a young soldier of the 18th Regiment, of which Dr. Maclean was then in medical charge; the other in the 55th Regiment. These cases occurred in China in 1841-42.

The disease in the next case is much more extensive in character, and is the one which answers to that form of kelis which Dr. Addison sought to separate from the

former variety, under the name of "true keloid." The drawings and photographs sufficiently indicate the appearances of the disease, and I proceed at once to give the history of the case.

Private Robert McF—, 2nd Dragoon Guards, æt. 43, a man of spare but muscular habit, was admitted at Fort Pitt on the 29th May, 1862, to be invalided from the army, on account of a disease of the skin, which appeared in India, and was at first mistaken for a form of leprosy. The patient states that previous to enlistment, in the year 1839, his occupation was that of a blacksmith, and that since he joined the service he has performed the duties of farrier in his regiment. He has always enjoyed good health, with the exception of an attack of typhus in 1838, and the contraction of a venereal sore in 1841. The sore, he mentions, was never followed by secondary symptoms, nor does it appear from the medical records that he has ever suffered from a constitutional syphilitic taint.

Private McF— landed in India, in November, 1857, and states that for the first five months he did not suffer from prickly heat (*lichen tropicus*), but at the expiration of that time began to suffer from it. While in cantonment at Meerut, in May, 1858, and after having suffered in common with all the other men of the regiment from the usual symptoms of prickly heat for about a month, the present disease first made its appearance. It began as a few prominent, red tubercles, on the right forearm. It next appeared over the middle of the sternum, a situation which appears to be, from the statements of most observers, its "seat of election." From thence it extended in a gradual manner towards the two sides of the body. At the same time it appeared on the left shoulder and various parts of the back, and continued spreading until it had covered the entire dorsal surface, as shown in the photograph. The patches of hypertrophy appeared at first as small tubercles which, gradually increasing in size, and

meeting each other, coalesced into larger growths. These growths sent forth spur-like processes on every side, a slight puckering of the healthy skin, which surrounded the marginal limits of their bases, marking their progress. The spread of the disease was very slow and gradual; a period of two years elapsed before it had attained its present extent. His general health has never suffered in the smallest degree from the affection. The only annoyance he has endured in consequence of it has been the intense itching irritation which has accompanied it, more particularly when he has been warm in bed at night and in warm weather.

During the cool season in India he did not suffer from this distressing symptom, and he observed that if the cold weather lasted sufficiently long, not only did the pruritus cease, but the vivid redness of the keloid growths faded away. Even a partial disappearance of the growths would take place on continued cold, the prominences sinking, and leaving instead the peculiar old cicatrix-like condition which is visible in various directions.

None of his relatives had ever suffered from any similar affection, nor is he aware of any having died from cancer, or malignant disease of any form. There was no reason to suppose that the disease had been aggravated by intemperate habits.

Condition on admission at Fort Pitt, Chatham, 29th of May, 1862 :—On examining the patient, whose general health appears to be excellent, the condition of the respiratory, circulatory, digestive, and excretory systems being all normal, we first notice in front some spots of kelis scattered over the upper extremities, and some bands stretching across the lower part of the chest. Behind, nearly the whole surface of the back, especially over the scapular regions, and a large portion of the surface of the loins, are covered with a network of this morbid growth, of the most striking appearance. The inferior extremities are quite free from the disease. The patient's face is covered by

small, rugose growths of the same character, interlaced in such a way that the depressions existing between them appear pitted, and closely resemble the marks left by variola. The part of the body which presents the keloid hypertrophy in the most marked aspect, the interlacing of the prominent fibrous ridges being most close, the depressions among them deepest, and the general resemblance to tightly drawn cicatrices strongest, is the left scapular region and its neighbourhood, including the posterior aspect of the shoulder. It is in this situation that the pressure of the cross-belt is chiefly exerted. In like manner, the part of the anterior aspect of the body which exhibits most of the keloid growths is that which is ordinarily subjected to the pressure of the waist-belt.

So much for the general position and characters of the disease; its more particular features, as noticed on closer observation, are as follows. It consists of excrescences, or rugged, cuticular folds, of various shapes, but generally appearing like oblong bands, joined together in such a way as to enclose within them spaces of a more or less oval outline. The folds rise abruptly from the cutaneous surface to a height averaging two or three lines. Their margins are observed to be generally more elevated than the intermediate portions. The skin covering the depressions enclosed within the keloid ridges presents to the eye the usual appearances of normal dermal tissue. The ridges themselves are of a uniform vivid-pink colour, but their surfaces are intersected by minute white lines. The florid pink line of the ridges terminates with their circumferential margins; a distinct line of demarcation, so far as colour is concerned, exists between their bases and the surface of the adjoining skin. Pressure causes the redness to disappear temporarily. In addition to the keloid folds just described, there are scattered over the integumentary surfaces numerous thin, shining, corrugated patches, closely resembling the cicatrices left by burns. These appearances mark the situations where bands of the pink kelis formerly

existed, but which have gradually lost their active character, and subsided into these apparently permanent cicatricial-like residues.

When examined by touch, the keloid bands, on laying hold of them laterally and slightly raising them, are felt to be firm and elastic, and have apparently a fibro-cartilaginous consistence; on the other hand, when passing the fingers over their surfaces, the sensation given is that of velvety smoothness. The facility with which they can be moved to either side, and with which they are seen to participate in the motions of the skin, prove that they have no deep-seated connexions. They convey the idea of being thickened hypertrophied folds of dermis, distinct from the areolar tissue lying beneath. The pressure made in the examination by the fingers does not appear to cause any abnormal sensation of pain or tenderness; sensibility of the surface is, however, perfect. The growth has never caused pain, apart from the irritation and itching which have always been present in hot weather. The muscular movements of the body have never been impeded by its development.

The patient complains of more or less sensation of heat in the parts of the cutaneous surface marked by the disease, and on placing the hand upon these parts a certain increase of temperature is perceptible. A sensitive thermometer, which, when placed under the tongue, rose to 97° Fahr., and in the axilla to 94.5° Fahr., indicated 91° Fahr. as the mean temperature of the diseased surface, while that of the normal portions of the integuments was only 89.5° Fahr. The function of perspiration does not seem to be impaired; the surfaces of the keloid ridges are perceived to be as moist as those of the sound skin.

When the disease is observed with an ordinary magnifying glass, the prominences present nothing peculiar. They have a highly vascular appearance, and are intersected by minute, white, fibrous-looking lines.

The chief features of the disease in this case having been described, it remains only to say that various remedies, both constitutional and local, were tried without producing any

marked effect upon the disorder. Constant attention to cleanliness, so as to prevent accumulation of sebaceous secretion or dirt in the depressed interspaces, and the application of cooling lotions, allayed the irritation which accompanied the disorder, especially when the atmospheric temperature was elevated, but nothing appeared to exert any influence either in checking the spread or promoting the absorption of the characteristic keloid growths. The patient was discharged as a pensioner from the army, and proceeded to reside in Glasgow at the end of June last (1862).

Remarks.—The description of the two cases has been given so fully that very little more remains to be said. The peculiar characters of “kelis,” as first described by Alibert, were so strongly marked in these two instances, that it was impossible to confound the disease with any other cutaneous affection; and one is at a loss to understand how its existence as a distinct malady could have been ignored by Bateman, and other authorities. But whether the genus “keloid” offers characters distinct and varied enough to warrant its division into two species—the first, “true keloid;” the second, “keloid of Alibert” (false or spurious keloid)—is a subject which fairly admits, I think, of discussion. No two more striking examples of the two species, if they be admitted to be distinct species, could be found than the cases I have brought to the notice of the Society. The larger, flattened, isolated tumour, in the one case, following the irritation of flogging, forms at first view a remarkable contrast with the cicatrix-like bands and depressions dispersed so extensively through the dermal structure in the other. But do not the two cases present evidences of their being simple varieties of the same disease, dependent upon the same keloid constitution, if I may so express it, of the dermal tissue, their different features depending solely upon the differences in the exciting causes? It appears to me that there are evidences of such

varieties; and that the keloid constitution,¹ whatever that may be, existed in the patient in whom the disease was excited by the flogging, is rendered manifest by the slightness of the punishment in the first instance; by its non-development until a considerable period (nearly three months) after the immediate effects of the punishment had been healed; but more particularly by the small keloid spots in the favourite habitat of this affection, viz., the skin covering the anterior part of the chest. The term "spurious keloid" would scarcely be justifiable in such a case. It is equally evident that in the second case a similar constitutional tendency existed; for of all the men of the Queen's troops then in India, and subjected to the same solar influences, the disease was developed in him alone. Had there been any other instance, the subject of it would have equally had to be invalided from the army. The extensively diffused character of the keloid affection in this latter case was probably due to the equally diffused irritation of the "lichen tropicus" to which the man was subjected. It is curious that two cases of "kelis" after flogging should have happened to fall to the notice of my colleague, Professor Maclean; as I have in vain searched for any other example of the disease among the records for several years past of the invaliding hospital at "Fort Pitt" than the one I have just described.

It will not escape notice that the "lichen tropicus" which preceded the appearance of the kelis in the soldier who was invalided from India, is a feature which corresponds very

¹ Dr. W. J. Burnett, of Boston, has recorded an instance in which the disease seemed to descend from a father to his children ('American Journal of Medical Science,' new series, xxvi, p. 370, quoted by Dr. Wood). Dr. Wood regards the keloid growths occasionally developed in the cicatrices of ordinary ulcers, not as a spurious keloid, but as a true keloid growing thus in a person constitutionally predisposed (Wood's 'Principles and Practice of Medicine,' vol. ii, p. 457). Dr. Bennett gives an instance of keloid growths in the cicatrices of *syphilitic* rupia ('Principles and Practice of Medicine,' p. 950). In this case, had the cicatrices resulted from any other cause, it is only reasonable to suppose they would have been equally followed by kelis.

closely with the pricking and itching sensations described as an accompaniment of the disease from its onset, by some of the patients in whom the disease has been developed in our own country.

There is one point which seems worthy of notice, as bearing on the subject of treatment. Mr. Erasmus Wilson mentions that in a case which he brought to the notice of the late Mr. Key, gradual pressure was recommended as a mode of treatment, with a view to promote absorption, and that it proved fruitless.¹

Dr. Rayer had recommended the same remedy. In the first case which I have brought to the notice of the Society, it would appear as if the pressure of the leathern belt, after the return of the man who had been flogged to his ordinary duty, was one cause which assisted in the development of the keloid tumour. In the second case also, the radiciform processes were most prominent and closest together in the neighbourhood of the left shoulder, where the pressure of the belt was chiefly exerted. These observations would be further arguments against resorting to pressure as means of cure. The proper mode of treatment is still a desideratum. None of the remedies employed in the two cases detailed appeared to exert any beneficial influence. Alibert relates that in the cases in which extirpation by the knife or destruction by caustic appliances have been resorted to, the operations have wholly failed; and it appears to me that such a result might be anticipated from studying the nature of the malady and its causes.

A stereoscopic photograph of the keloid growth in the case of Edwards is preserved in the collection of the Society.

¹ 'Portraits of Diseases of the Skin,' 1855, by Erasmus Wilson, F.R.S. ("Kelis.")

DESCRIPTION OF PLATE IV.

The case of Private Robert Macfarlane, 2nd Dragoon Guards.

Fig. 1.—The keloid disease as it appeared upon the left humeral and scapular regions.

Fig. 2.—The keloid growths in the same case, as they appeared upon the chest and epigastric region.