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KELOID.

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VERY dermatologist knows that there are many skin diseases which are but rarely or never observed in Caucasians but which nevertheless, are seen rather frequently in other races. This is said to be dependent upon susceptibility; but this is really begging the question, as it is merely stating the original proposition in another form. It is an attempt at an explanation which, in reality, does not explain. So that we must, perforce, remain contented with the mere statement of a bald fact until some more satisfactory reason can be brought forth. Under these circumstances it may be simply stated as a fact

that among the cutaneous affections which are not commonly observed in white persons, but which seem and actually do occur rather frequently in negroes, may be mentioned keloid. This disease, as most frequently seen, is known as the traumatic variety, and is the result of burns, cuts, lashes, operations, or of any other condition which may cause a traumatism, the keloid occupying the place which would have been occupied by a scar had the trauma healed as it does under ordinary circumstances. The variety which is much rarer is that known as "true" or spontaneous keloid. Plicque makes the statement that true keloid is not only rare, but is a condition whose etiology it is very difficult to establish. He goes on further to state that Wilson, Kaposi, Vidal and Schwimmer altogether have seen but seventy-two cases. Van Harlingen states that he never saw one; and authors in general, who have had a large dermatological experience, do not claim such, so far as having observed cases of spontaneous keloid is concerned. The disease is one of more than ordinary interest, not only from its morphological peculiarities and unusual pathology and pathogeny, but from the further fact that it is one which, up to the present, has seemed to resist all forms of treatment, even such as are thoroughly radical in character. It is seemingly incurable, but this is certainly only due to the fact that the methods hitherto employed are inadequate; and there is no doubt that some method, very probably simple in character, will be discovered which will solve this therapeutic riddle in a satisfactory manner.

Keloid, whose name is derived from the Greek word *Kelis*, signifying a crab (to which it has been said to bear a fancied resemblance), is essentially a neoplasm of the fibrous variety. The disease occurs in the form of tumor-like formations, which are rather flattened, and which may or may not have narrow prolongations. The lesions occur about the chest and back for the most part, although the arms, legs and face may also be involved. The color is usually not so dark as that of the surrounding normal in-

tegument, and here and there upon the surface there may be observed fine blood vessels ramifying in a somewhat stellate form. This latter, however, is not an invariable accompaniment and is frequently absent. To the feel the lesions of keloid have a sort of doughy resistance, which, whilst it is perhaps firmer than that offered by a lipoma, is still not as marked as that offered by a fibroma. It is something very difficult to define, and yet when once it has been felt it is never forgotten and is easily recognized when felt again. The integument covering the keloidal tumor is smooth, sometimes tense and glistening, and not very freely movable or even attached.

Before proceeding further with the general characteristics of keloid it may not be inopportune to give the history of a case of the spontaneous variety which I had occasion to observe some few years ago. S. C., a mulatto, aged 31, and a musician by occupation, gave a good family history. His father died of pneumonia, and his mother, still living, as well as three brothers and one sister, never had any disease. So far as the patient knew, neither syphilis nor tuberculosis ever existed in any of his ascendants. The patient states that he was vaccinated on the right arm at the age of three. When the vaccination healed it was followed by a small tubercle at the site of the scar, and when he was eight years old the tubercle began to enlarge. It continued to do so until it attained the size of a silver dollar in circumference. It was then that new tubercles began to appear upon the right arm only, and they continued to enlarge until they reached their present size. They next appeared upon the chest, as they had done upon the arm, and they followed the same course. Then they made their appearance upon the hips, and then upon the face. Whilst these were enlarging small tubercles would be appearing. The back shows a number of these latter.

When examined the patient was found to be of medium height, well built, inclined to be muscular. He is active and complains of no discomfort, except so far as it is connected with his cutaneous trouble. He presents the following appearance, which is well shown in Figure 1, his back only being shown: Upon the left cheek there is a tumor of the size of a walnut, rather flattened and glistening and traversed by enlarged vessels of an arterial character. Upon the right arm, at the apex of the shoulder, there is a large, flattened tumor, rather depressed at the center. Lower down four other tumors exist on the outer aspect of the arm down to the elbow. These are of various sizes and rather paler than the integument. On the right fore-arm there are two other tumors, also large and projecting, slightly depressed at the center. The apex of the left shoulder is also the seat of a keloidal tumor, three more being upon the left arm, one anteriorly. The left fore-arm is not implicated. Upon the chest a broad, irregular mass occurs over the sternal region, encroaching upon each breast laterally. Upon the right breast there are two small tumors to the left of and about an inch and a half from the nipple, one being slightly larger than the other. Upon the left breast there is a very small tubercle, external to and about an inch and a quarter from the nipple. Below and between the breasts, about two inches either way, is a tumor about an inch long and half an inch in breadth. At the lower border of the left scapula are one or two small nodules, and on the right two well-defined keloidal tumors. Below this numerous small nodules are distributed over the back.

Upon the right buttock there are two large, irregular tumors; and upon the left, one whose shape would seem to suggest that several, which formerly existed, have coalesced. When these tumors are examined it will be found that they are all depressed at their centers, roundish or ovalish in contour, and none pedunculated, a peculiarity to which Plicque called attention long since.

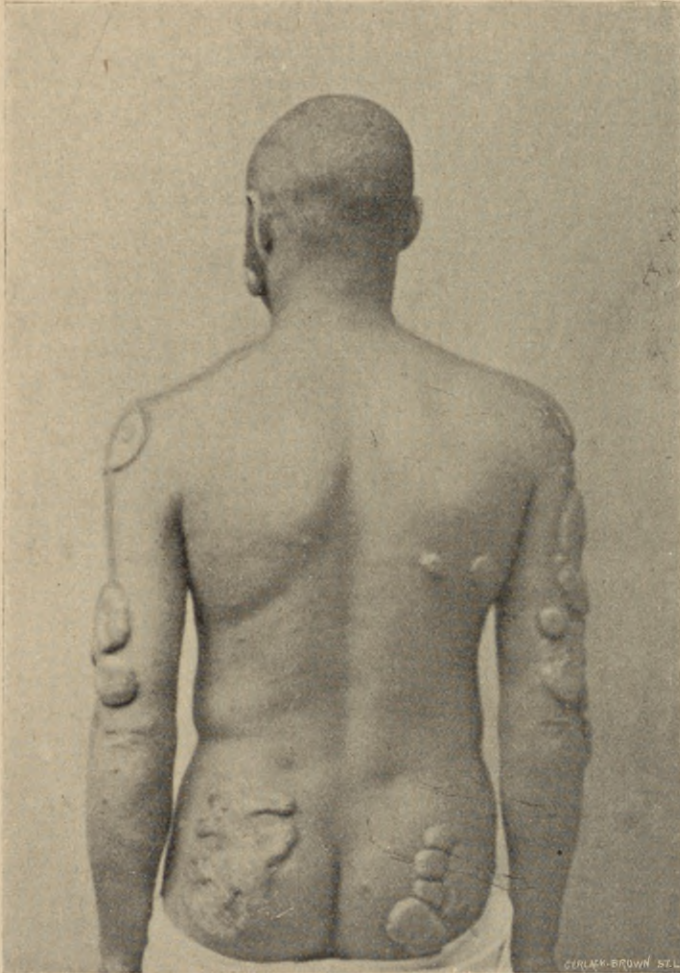


FIG. 1. Keloid

The patient states that whilst the tumors are not particularly uncomfortable, so far as their location and size is concerned, they do occasionally elicit a great deal of pain, this being very much allied to neuralgia in its character. The pain is sharp and shooting, spreading in various directions, and it seems to recognize a keloid as a center of distribution for all of its ramifications over an affected area. There is added to this a certain amount of itching, which may become very marked. In addition to these

subjective symptoms, suppuration is to be found. It is not of a marked character, but rather deep. According to the patient's statement, these tumors have suppurated at times, and the process last for a certain period. It is this destructive action occurring at the center which produces the apparent umbilication which is observed. Handling the keloid does not seem to produce any particular pain under ordinary conditions; but, when the neuralgic pains are present, the mere act of touching it makes the pain more acute.

The history of this case is certainly most instructive, so far as obtaining a good idea of the objective and subjective symptoms of keloid is concerned. There are, however, some points in connection with the disease which are not brought out in the above. The number of keloids observed in different subjects varies greatly. In many there is but one, situated upon the chest, in the form of a flattened mass, extending horizontally and terminating at each extremity in small, narrow prolongations, having much the appearance of thickened scars. This peculiarity of prolongations from the central mass is rather a common one. The chest is certainly the site of predilection of keloid. The back is another locality for this peculiar growth, and here it is most often found in the form of parallel stripes or bars looking very much like scars. Another form is where it occurs as a single roundish or ovalish tumor. A very common locality is the lobes of the ears which have been pierced for earrings. But there is no locality in particular which is immune to keloid. Again, we find cases in which there exists a number of keloids, and they are of different sizes, much depending upon the length of time each one has existed, the older ones naturally being the larger. It may also be generally observed that it is a common occurrence for a more or less flattened or extensive keloid to become depressed to a certain degree at its center, and suppuration may declare itself at one or at several points. This process subsides spontaneously, but is followed by the formation of scars, which are plainly perceptible upon the surface of the growth. The objective symptoms which have been briefly outlined are so easily recognized as to render a diagnosis of a case a comparatively simple matter. This recognition is rendered still easier by a due consideration of the history and of the subjective symptoms which are noted by the patient.

These subjective symptoms, when they manifest themselves, are of quite a marked character. At times there is some itching, which manifests itself, but it is not very marked and really amounts to very little when we take into consideration another symptom, which is a most prominent one and occurs in all forms of the disease and all cases. This symptom consists in a sharp, lancinating, neuralgic and almost unbearable pain, which occasionally becomes excruciating in character, causing the patient to writhe in anguish. It is so acute in its intensity, and persists for such a comparatively long period of time, that the one subject to it becomes positively frantic. It is most irregular in the periods of its manifestations, and it is this very uncertainty as to its appearance that keeps the subject in a constant state of fear and terror at the mere thought of the possibility of its sudden and unexpected appearance. It may be readily surmised what a serious condition such can be in a neurotic, or one whose nervous system has the slightest susceptibility to such psychic disturbances. There is the

further terror added of the possibility of new keloids forming and, in their turn, adding to the agony of the condition already existing.

False keloid is occasionally observed, but it is not to be confounded with the true variety, although it resembles it in no small degree. It is always due to traumatism and greatly simulates scar tissue. It is rarely, if ever, as extensive as true keloid, and it is devoid of the subjective symptoms noted in the latter. In addition to this, it will yield to radical treat-

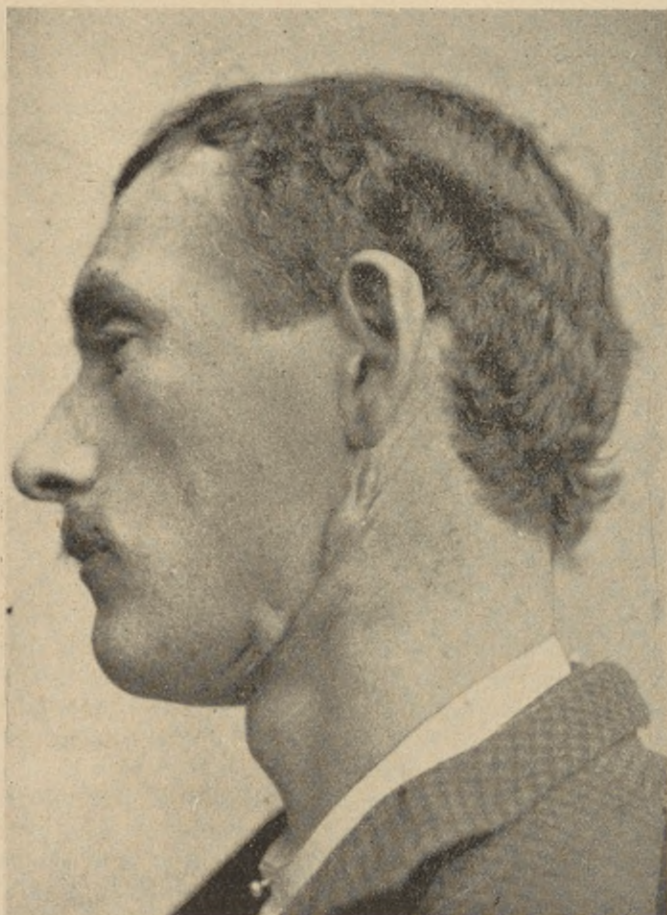


FIG. 2. False Keloid.

ment, something which the true form has never been known to do. It is for this reason that more than ordinary care should be taken to recognize such cases, on account of the important bearing this has in formulating a prognosis and in procuring successful treatment, where such is indicated. A good example of this peculiar form of pseudo-keloid is shown in Figure 2. The patient, a young, white adult, suffered from tuberculous glands of the neck. He was advised to have them excised, which was accordingly

done by a very competent surgeon. The incisions were quite slow to heal, but finally cicatrization occurred. It was, perhaps, but natural to expect a corded scar, which showed itself. In a comparatively short time, however, small prolongations from the scar made their appearance. This condition is very well shown in the picture. Observing this peculiar condition, the patient applied for relief, fearing that these prolongations would increase in both size and number. The final outcome of the case was all that could be desired. The cicatricial masses were excised, and after two years no recurrence had taken place. An interesting point to note, in connection with the case, is the fact that the patient was white, with no possible admixture of black blood. He never complained of any itching or pain, and requested an operation for purely cosmetic purposes.

Keloid is a growth which has been observed to occur after the age of puberty, in early adult life, as a rule. It does manifest itself during middle age, but those who have escaped it and arrive at old age do not manifest the disease. If they be prone to it, an operation or a traumatism will be followed either by a hypertrophic scar or by a false keloid, which will cause but very little or no trouble beyond that caused by its ugly appearance. The disease itself seems to exercise no predilection for either sex, for it is seen to occur in females as frequently as it does in males. The size of the keloidal tumor seems to bear some relationship to the comparative intensity of the darkness of the skin. It would seem that the more pigment there is in the skin the larger the keloid is, other things being equal. Thus, in the darker negroes keloid seems to be larger than in those who are lighter; and in the white-skinned races it is quite small, as a rule, and never attains a large size. It is such an unusual thing to observe in Caucasians that its presence is accounted almost a rarity.

The essential cause of keloid is unknown. So far as the origin of spontaneous keloid is concerned, nothing at all is known. The most common cause of the more frequently seen form, so far as can be determined from the histories furnished, is traumatism. Such injuries as are caused by burns, cuts, strokes of the lash, blows inflicted with whips, iron bars, pieces of wood, and similar exciting causes, are followed by keloid in those individuals as are susceptible to the disease. The keloid occurs along the whole track of the traumatism, no matter in what portion of the body it may occur, and this new growth presents all the peculiarities and symptoms inherent to the disease. There is no doubt, whatever, that a certain susceptibility exists; but in what this peculiar and strange susceptibility consists, essentially, has never been explained. All that can be predicated when it makes its appearance is that it exists. In the spontaneous form of keloid we have the disease manifesting itself without any apparent cause or reason. It suddenly makes its appearance in the form of a small tumor, somewhat elevated, and it gradually enlarges until it reaches its limit of growth, where it remains stationary. In the meantime other keloids may be developing, so that it is not unusual to find a number of tumors in various stages of growth. As in the traumatic form, there exist marked subjective symptoms of a most painful and disagreeable character.

The histopathology of the various forms of keloid and pseudo-keloid cannot be entered into at this time, as the subject is one whose thorough

consideration would require much more space than could be spared at this juncture. Suffice it to say that it is a connective-tissue new growth which differs essentially from true scar, hypertrophic scar, or fibroma, in the peculiar distribution of the fibers of connective tissue.

The treatment of keloid is as yet an *odium medicinae*. All the various methods which have been devised up to the present time have proven absolute failures, with the possible exception of one, and this is only claimed to have produced fair results in but a few exceptional cases. Excision is totally powerless, and is invariably followed by a relapse. The same is the result of the employment of the actual cautery, galvano-cautery, or chemical caustics. Each and every one produces a wound which, as soon as it cicatrizes, is again the seat of a keloidal tumor. Electrolysis is reported to have cured a few cases, but as there have been no reports forthcoming detailing the condition of the so-called cured patients, one or two years later, no positive reliance can be placed in such reports, more especially in view of the fact that the authors have noted relapses in patients treated by this method. For this reason the physician whose aid is sought in such cases should always be careful not to make promises or even hold out any marked encouragement to patients afflicted with keloid.

What may be done is to allay or mitigate the intense pain which manifests itself, and this may be accomplished by causing cocaine to traverse the tumor by means of cataphoresis. If this is not possible, a good application is the following, to be rubbed in frequently:

℞	Cocaini muriat	gr. xv
	Ung. aquæ rosæ	ʒ ij
	Lanolini	ʒ vj
M.		

Hypodermics of cocaine will also help to a marked degree and do much to allay the pain.

The prognosis in every case is always bad, and no hopes of ultimate recovery from keloid should ever be held out in the present condition of our knowledge of its therapeutics.

