

Lecture.

CLINICAL LECTURE ON EPITHELIOMA AT MASSACHUSETTS GENERAL HOSPITAL.

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GENTLEMEN: It is my desire to say something to you to-day in regard to cancers on the surface of the body, or the so-called epithelioma. I take up the subject with you at this time because I consider it a particularly favorable moment.

As you are aware, a great change has taken place in our attitude toward, and our treatment of, this form of malignant disease, since the introduction of the x-ray, and I think the surgeon is all the more interested as he finds that some of his patients having this disease are disappearing and going to the dermatologists and the x-ray specialists. In this hospital I find that rodent ulcers are now treated largely in the skin clinic, and we see comparatively few of such cases in the surgical wards, and I might say that this is true also in private practice.

Some thirty years ago I wrote an article on this subject and as a result of that investigation I have seen many cases of rodent ulcer, and have become familiar with the treatment used at that time and since. In the early days the treatment was with caustics to a great extent, curetting and burning with nitrate of silver, and burning with the actual cautery; but as time went on and asepsis was perfected, I began to use the knife, with the result that the cures were more rapid and much more complete than they were by the old methods of cauterization. Of course there were cases which were beyond the reach of the knife and very difficult to treat, and others so situated that removal by the knife produced great disfigurement. You will see presently to what extent the x-ray has been helpful in treating these ulcers. Occasionally I have met with cases which have proved fatal in spite of all treatment, and cases which have produced the most disfiguring ulcerations. In my "Surgical Pathology" you will see the picture of a man with one side of his face destroyed by an ulcer, and in the "International Text-Book of Surgery" you will find the portrait of a man the whole side of whose face, half the nose, the eye, cheek and the side of the mouth are gone, as a result of disease of long standing. Manifestly, such cases are beyond all therapeutic aid, and succumb in spite of any kind of treatment. Whether with the advent of the x-ray such cases will become rarer is a point which will be watched with a great deal of interest.

Considering now the pathology of epithelioma, I wish to impress upon your minds that there are two principal varieties. One which is almost a benign growth, and another which approaches more nearly to cancer in a clinical sense. It has long been recognized that carcinoma in this region of the body is very much

less malignant than carcinoma of the breast and intestinal canal, for example, and in the early days when little was known about the general characteristics of cancer, these growths of the skin, being found to be composed of large pavement-like cells, were known as epitheliomata; hence, it was believed that epithelioma was a different kind of disease from that which was then recognized as cancer. Of course, until we are able to state more definitely the true nature of cancer, it is useless to try to classify its varieties to any great extent. We are sufficiently familiar with the pathological anatomy of the disease, however, to know that all these cases should be recognized as cancer, although they may be greatly modified in the appearance of their histological structure by different regions of the body in which they grow.

Now in cancers of the skin we must recognize two varieties. First a very superficial type, known as the rodent ulcer, a small-celled epithelial cancer, and second a polymorphous-celled type characterized by larger cells among which the characteristic nests of cells occur. The type of the former of these two varieties is the rodent ulcer of the face, while types of the latter form are cancers of the lip, of the back of the hand, and of the penis.

I shall speak chiefly of the former of these two varieties, cancer of the face, or rodent ulcer, or superficial epithelioma. As you know, the skin is composed of several layers. Superficially we have the epithelial cells and a horny layer, while underneath are the cutis vera and the subcutaneous tissue. Between these, in the rete mucosum, is a layer of small epithelial cells which cover the papillae and fill the spaces between them. As we approach the surface the cells become distinctly larger, and finally, on the top the cells are dried, have lost their nuclei, and have become scales. The epithelial cell growth found in rodent ulcer corresponds to the small cell type of the rete mucosum. The clinical changes in the rodent ulcer type are very characteristic. An elderly person finds a roughness of the surface on some part of the face with the tendency at some point to the formation of a scab, and there seems to be a weather-beaten condition of the complexion. There is a growth and thickening of the upper layers of skin known as keratosis senilis. Eventually the dry scab is picked off, and an ulcer is found. This dries up and seems almost to disappear, but the scab again appears and the patient picks it off, and finally the patient finds that it is always there. And so it may go on for years, the patient accepting it as a mole, and it slowly increases in size, until some day it seems to grow more rapidly. As with all malignant growths, it has an early stage when the growth is very slow; then suddenly it takes on more rapid growth; the patient becomes alarmed finally, and seeks relief. Microscopic examination of the affected part at this time shows an undergrowth of cells gradually working down into the skin in more or less finger-like processes. Thus we have an infiltration

into the tissues below and this keeps on until the center breaks down and an ulcer is thus formed. If a bit of the ulcer is cut out and examined microscopically, we find the papillæ becoming somewhat enlarged at that point, and the cells between them gradually pushing down into the interior, and little patches of similar cells here and there between them. We find them composed of cells similar to the cells of the rete mucosum as a rule without the cell nests. One of the great clinical features of this type is its tendency to remain localized, to remain in the skin itself. It may continue to grow and involve the whole side of the patient's face, but still it remains local—in the skin. It is, however, slowly progressive, and finally attacks bone, nerve, eye and other complicated parts.

Inquiring into the history of such a case the diseased process is found sometimes to have gone on for forty years or more, during which period the growth had been at times imperceptible, but it was always there. On examination you will find no enlargement of the lymphatic glands, and that is a very characteristic feature of the disease which makes the prognosis encouraging, and I want to impress upon you this clinical trait in reference to the after-treatment.

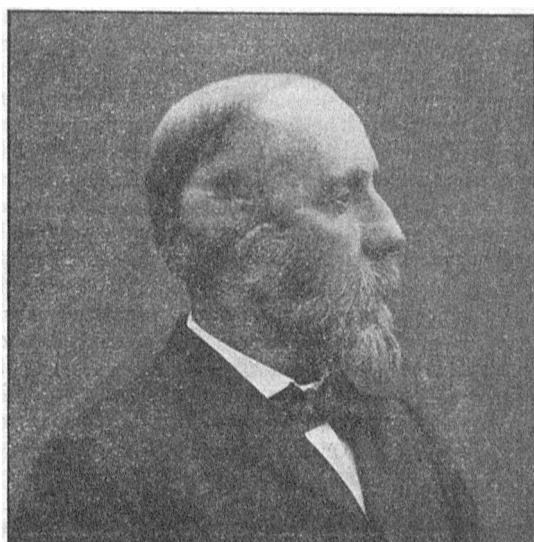


FIG. 1.

The second variety is the more malignant type, the typical epithelioma, such as cancer of the lip. We find the papillæ near the vermilion border somewhat enlarged and running down in an irregular way into the tissue below. If we look at one of these prolongations we find onion-like clusters of large cells in the center, while around the edge are rows of more or less columnar shaped cells while the mass of cells in the intervening space is of the most varied character. If we examine the neck of a patient who has a well-developed cancer on the lower lip we shall find, in all probability, enlarged glands under the jaw on the side nearest to the growth, and if the cancer is on the penis the glands

of the groins are enlarged, and if on the hands the glands of the bend of the elbow or of the axilla are involved, and as a consequence of this we have a fatal termination in a very much larger percentage of cases than in rodent ulcer, where the growth occurs very slowly, and death only follows as a result of long-continued growth, and invasion of important structures. Here is a photograph (Fig. 1) of a man who gradually succumbed in that way, the disease beginning in the tip of the ear and slowly destroying everything in its way until the meninges of the brain were involved and he died with symptoms of cerebral complications. The photograph shows the temporary relief afforded by a plastic operation. A large ulcer occupied the site of the right ear. The patient had been subjected to a prolonged application of caustic at a "cancer cure."

Now I have a series of cases of rodent ulcer which I will show you, gentlemen, without any extended critical remarks as to treatment, then after that I will say something about the operative treatment, as contrasted with the X-ray treatment of the disease.

CASE I. Here is a man fifty-eight years of age who has had this ulceration on the nose for seven or eight years. It began on the side of the nose, then it gradually spread until it covered the whole nose. This is a good example of a very diffuse type. In some cases the disease seems to skim along the surface instead of cutting down deep into it. To what extent has it been helped by the x-ray? It has had fifteen months' treatment. He had two treatments a week at first and is now having one, and there has been a gradual improvement, but there is still well-marked ulceration at certain points. You see the neighboring skin is a good deal reddened. That is not usual. It is simply that in some of the more superficial types we see a secondary inflammation of the skin. The redness may be in part due to the action of the x-rays.

CASE II. This woman is fifty years of age. She has had a growth on the temple for fifteen years. She began treatment in February, 1903, with the x-ray. Since then the growth has diminished in size but it involves the bone near the orbit. She is under treatment now in the skin department. A cancerous growth which is small in size but which has begun to attack deep-seated tissues would seem to me to need the most radical surgical treatment without waiting for the results of x-ray therapy.

CASE III. Man of seventy-eight years. He has a large but very superficial ulcer on the right cheek beneath the eye and extending over the right half of the nose. Twenty years ago he noticed a pimple on the face after an attack of erysipelas. For fifteen years it increased in size. Came to the out-patient department for x-ray treatment, and it has relieved the pain, but not the condition. Examination under the jaws shows no involvement of the glands. This is a small-celled epithelial cancer. You see that it would be necessary to excise nearly the whole cheek, and so it seems reasonable to try the x-ray in a case of this kind. In the diffuse forms this treatment seems particularly well indicated.

CASE IV. This patient has an ulcer the size of a half dollar on the back of the neck. Eight years ago he noticed a pimple on the neck. He scratched it and thinks he poisoned it. He was treated with local applications and at one time the ulcer was excised but the wound did not heal. For one year has had x-ray treatment here. It is growing somewhat smaller, and there is less induration than a year ago. You see he is a rugged man. This seems a favorable case for cure by free excision giving the growth a wide margin and closure of the wound by a plastic operation. (This has since been done.)

CASE V. Man of seventy-two years. First noticed a scab about eleven years ago over the scar of an old bayonet wound of right cheek received in the Civil War. Several years later an ulcer formed which soon began to involve the eye. There are now several ulcers in the neighborhood of the orbit and the right side of nose. Came in here about two years ago and has been taking x-rays since then. Now here is a case which seems suitable for x-ray treatment. Operation would be very difficult; the ulcers could be excised but the wounds could not be closed and Tiersch grafts would not hold with any certainty.

CASE VI. This man is forty-three years old. Here the ulcer is on upper lid of right eye, which began as a pimple in the upper lid five years ago. The ulceration now extends from the inner canthus to the outer and from the upper edge of eyebrow to the conjunctiva. The outer half of the conjunctival lid is gone. No bone is exposed and the cornea and ocular conjunctiva, although inflamed, do not appear to be involved. He has also an ulcer over the malar bone which was formerly connected with that of the lid. There is vision to light in the right eye. No involvement of the glands. He has received the x-ray treatment for a year and a half. During this time there was one period of increase in the growth. There is now improvement which has been very marked during the past months.

CASE VII. In this case there is a history of a blasting accident forty years ago. A few years ago he noticed a scab on the site of the scar on his cheek and also on his nose since that time. He has been treated with x-rays. The ulcer has entirely healed up on the cheek, leaving a slight scar, and there is practically no disease remaining on his nose.

CASE VIII. A man seventy-one years of age. Began to have trouble twenty-three years ago on right upper cheek near the eye. He began to go to the dispensary and was treated by salves for a long time; arsenical paste, etc. When he came into my hands, four or five years ago, the whole side of the face was alternate scars and ulcers. Not a continuous ulceration, but a series of sores healing and breaking out. Finally the lids of his right eye had become thickened masses of epithelial disease. I saw that unless something very radical was done he would

succumb to the disease. The eyelids were transformed into an epithelial growth and the disease was pushing into the orbit, and would soon become a very malignant instead of a superficial type of cancer. The operation performed was an excision of the integuments of the right side of the face, including the eyebrow, eyelids, cheek and the right half of the nose and a portion of the right half of the upper lip. The lower border of the incision was on a line with the angle of the mouth. To cover this wound a flap was taken from the temple reaching to the vertex, the pedicle of the flap being just above the right ear. The wound of the scalp thus laid bare was covered with Tiersch grafts. The wounds healed well and there has been as you see no return of the disease now some five years since the operation. (Figs. II and III.)

CASE IX. I show you a portrait of a patient fifty years of age who is unable to come to-day from a distant city. (Fig. IV.) He came to me three years ago with an enormous ulcer involving the right temple having destroyed the upper half of the right ear from which it took its origin. It was of many years' duration at that time. The discharge, which was free, was offensive. There was no glandular involvement. Although not able to promise a cure I advised excision with plastic closure of the wound as a palliative measure. This operation was done, the wound made by the removal of the ulcer being covered in by a flap taken from the scalp having its pedicle over the occiput. As the flap was bent into place a fold formed at its lower border which fitted neatly into the remaining portion of the ear. The perieranium exposed by this operation was covered by Tiersch grafts. There was no recurrence for one year, at which time two nodules were to be felt in the parietal bone at the upper margin of the flap. These disappeared under the x-ray treatment, but there have been some recurrences since which the ray treatment partially controls. This case illustrates well the great relief afforded by a palliative operation in advanced cases of cancer of the face. A plastic operation removes the foul ulcer and the subsequent post-operative x-ray treatment postpones recurrence. It is in my opinion better not to wait for a complete cure before performing the plastic operation, but to close the wound at once and obtain the benefit and comfort of healing by first intention.

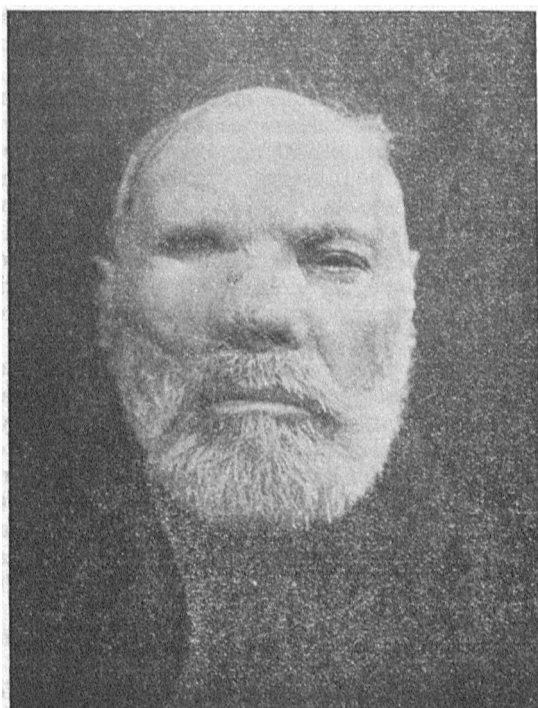


FIG. II.

Excision of right cheek and orbit; wound covered by flap taken from scalp. Tiersch grafting of scalp.

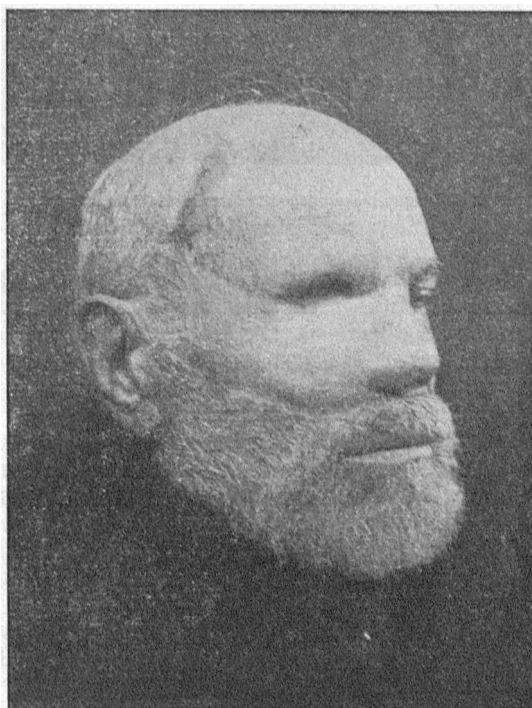


FIG. III.

These cases give you examples of the most common aspects of the milder forms of cancer of the skin. They all can be classed in the rodent ulcer group and I have selected them therefore for our study as they are the most favorable types of cancer for the x-ray treatment on account of the superficial character of the growth. An analysis of the cases in the dermatological department of the hospital of which some of these are examples shows favorable results under the x-ray treatment.¹ It is now pretty generally conceded that x-ray therapy has a favorable influence upon very superficial carcinoma but that the more deeply seated growths are not affected by it. We may therefore dismiss at once the more malignant variety of epithelioma so far as this form of treatment is concerned with the statement that it seems hardly justifiable to lose valuable time in treating a cancer of the lip or any of its allied forms elsewhere on the body in their early stages with x-rays. These

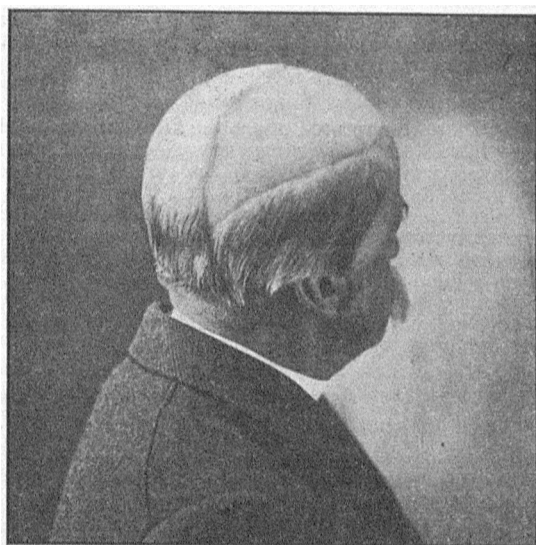


FIG. IV. — Large ulcer over right temple and ear covered by flap from scalp. Extensive Tiersch grafting of scalp.

cases should be treated by prompt extirpation with a careful search with the knife for infected lymphatic glands at the points which the disease is most likely to invade. In regard to rodent ulcer then it remains to consider the value of x-ray therapy in its different phases.

In its earliest stages the disease is usually seen as a small pimple or ulcer situated in the nose or near the lower eyelids. These are so easily and painlessly removed by the aid of subcutaneous injections of cocaine, with the knife, that it seems hardly necessary to consider the influence of the rays upon them. Such wounds are healed in a week's time and the cure is, with extremely rare exceptions, permanent. The same may be said of growths ranging in size up to that of a quarter of a dollar, unless they happen to be so situated that their removal with

subsequent suture of the wound would cause considerable deformity. This is the case near the inner angle of the eye or near the ala of the nose or on the nose itself. Experience shows that the cicatrization following the absorption of the growth by the x-ray leaves a soft and pliable scar. If, however, the ulcer is growing rapidly and shows thickened base or edges the stage of increased malignancy is close at hand. When once the inner canthus of the eye has become involved the growth spreads with much greater rapidity into the orbit. We have then a condition which only the most radical operation can hope to control, operations frequently involving extirpation of the eye and of considerable portions of bone. At the outer canthus we also see ulcers becoming adherent to the adjacent bone, which is here quite superficial. The x-ray therapist should therefore make himself thoroughly familiar with the more advanced and malignant phases of rodent ulcer if he wishes to make an intelligent selection of cases for treatment. There are one or two cases under this treatment shown you this morning which would be better treated by the knife. In such cases the dread of the knife should be overcome and patient be prevented from yielding to his instinct to lean towards the more popular therapy. There are others, however, which show clearly the great advantage which we possess in the ray treatment. There are those cases in which the disease is superficial and spreading over a large surface and those where ulcers are multiple and on prominent portions of the face or closely grouped together so as to necessitate the extirpation of a large piece of skin. In private practice where all such ailments are attended to in their early stages I think that the large majority should be treated by excision and that the x-rays should be reserved for exceptional cases only. The x-ray treatment is tedious and expensive and a severe trial to the strength of nervous and elderly people, who must be prepared to go out in all weathers for a considerable length of time. Some portions of the diseased growth must be allowed to continue in its course from twelve to fifteen months before it yields to the ray. During such a long period of time it might pass from the benign to the malignant stage and then be beyond the pale of surgery. I have seen many such cases dangerously near the border line and feel that a note of warning is necessary to physicians who yield too readily to the popular demand for ray therapy. I have been told recently by a skilled and experienced x-ray therapist that he has noticed a recurrence in several cases which he had regarded as cured, the disease returning some months later as a small nodule beneath the skin.

When we realize what frightful deformities may be produced in course of time by what is at first a painless and apparently trifling affection, is it not our duty to urge the most radical treatment in the beginning when a permanent cure is easily obtained?

¹Dr. F. S. Burns, *Boston Med. & Surg. Jour.*, Oct. 29, 1903.

In closing I would like also to enter a plea for more radical operations for cancer of the lip than are usually performed. Not only should the disease be removed by a most liberal V-shaped incision, but this primary lesion should be dissected away in a continuous mass with the cervical glands and tissue occupying the triangle nearest the seat of growth. The practice of incomplete "ambulatory" operations with the aid of cocaine anesthesia cannot be too strongly condemned.

Original Articles.

THE PREVAILING CONCEPTION OF DEGENERACY AND DEGENERATE, WITH A PLEA FOR INTRODUCING THE SUPPLEMENTARY TERMS DEVIATION AND DEVIATE.

BY G. L. WALTON, M.D., BOSTON.

THE term "degenerate" is now of interest not only to the anthropologist, but to the medical and general public, and the time has come to question whether it is adequate with no synonym, except for its worst significance, to meet all requirements of scientific classification and discussion, to say nothing of general use. If the word had received a uniform and accurate interpretation, the attempt to present an alternative would be superfluous. Such, however, is far from being the case. Degeneracy has become especially associated with profligacy, perversion, crime, epilepsy, insanity and idiocy. This is not remarkable in view of the nature of the word itself. The term "superior degenerate" has led to confusion, even among special students of the subject. While this term in its academic sense applies only to individuals lacking psychic balance, meaning that the higher qualities are affected, the tendency has crept in to include under it individuals with minor congenital peculiarities, whether physical or mental. But to designate an individual possessing either minor faulty mental tendencies or slight physical defects, a superior degenerate, sounds, except to the special student, something like calling a good egg slightly bad, or a business man moderately dishonest. And if in justification, not to say apology, for this diagnosis, it is stated that every one is more or less degenerate, the natural deduction is that the expression degenerate is of no special significance, or that we are only juggling with words, as one who would say "Every one is insane" or "Genius is a sign of insanity."

The works of Nordau¹ and of Lombroso² have so far associated degeneracy with decadence and with crime as seriously to hinder the general appreciation of its milder significance, notwithstanding its use in dealing with genius.

¹Nordau: *Degeneration (Entartung)*. 6th Ed. Appleton & Co., 1905.

²Lombroso: *Der Verbrecher (homo delinquens)*. Hamburg, Actien Gesellschaft., 1892-1896.
Criminal Anthropology. In 20th Century Practice, Vol. xii, 1890.
L'Anthropologie criminelle et ses récents Progrès. Paris, 1890.

Degeneration in its anthropological sense is defined in the Century Dictionary as "reduction to a lower type in the same scale of being; the act of becoming, or the state of having become, inferior, especially with respect to moral qualities."

The superior degenerate who seeks consolation in Roget's Thesaurus will be disappointed to find degeneracy marshaled in company with depravity, demoralization, retrogression, deterioration, perversion, prostitution, vitiation, contamination, corruption, blight, rottenness and pollution.

But degeneracy has come to include, medically speaking, every form of constitutional variation, however innocuous, from the average normal.

Dana³ defines degeneration as "a condition in which there is a marked deviation from the average normal." Church and Peterson⁴ define the stigmata of degeneration as "anatomical or functional deviations from the normal, which in themselves are usually of little importance as regards the existence of an organism, but are characteristic of a marked or latent neuropathic disposition."

The neurological definitions make no mention of moral qualities, and convey no suggestion that the individual necessarily represents a descent, even in the physical or intellectual, to say nothing of the moral, scale. Nor is it a logical conclusion that each and every deviation is degenerative because undoubted degenerates show many such signs. These stigmata range all the way from flecks on the iris, difference in color of the two eyes, unusual development of frontal lobes, left handedness and astigmatism, to perverted instincts, insanity and idiocy. Whatever they may or may not represent, the question in recording them is, What are they? It seems that they are neither more nor less than deviations from the average normal type. This type is a product of deduction rather than of experience, a composite photograph, so to speak, presenting the intellectual and moral as well as the physical characteristics of the average normal individual, a type not likely to present itself to the material eye, but none the less available for a standard. Goethe calls this standard an "abstract and general image."

Have we not, then, drifted into the unscientific position of recording facts in such a way as to involve an opinion? If so, is it not reasonable, unless we are dealing with obvious and undoubted degeneracy, to record deviations as deviations? If it is necessary to characterize their possessor, why not call him slightly, moderately or extremely deviate, or, if it seems appropriate, a deviate? And if occasion requires the use of a single word to include all varieties, is not deviation more appropriate than degeneration? Even suppose it can be proved that every deviation means degeneration, will anything have been lost by following a logical plan in establishing that proposition?

We are not limited to the word insanity in

³Text-book of Nervous Diseases, 5th edition, 1901, p. 24.

⁴Church and Peterson: Nervous and Mental Diseases. Saunders & Co.