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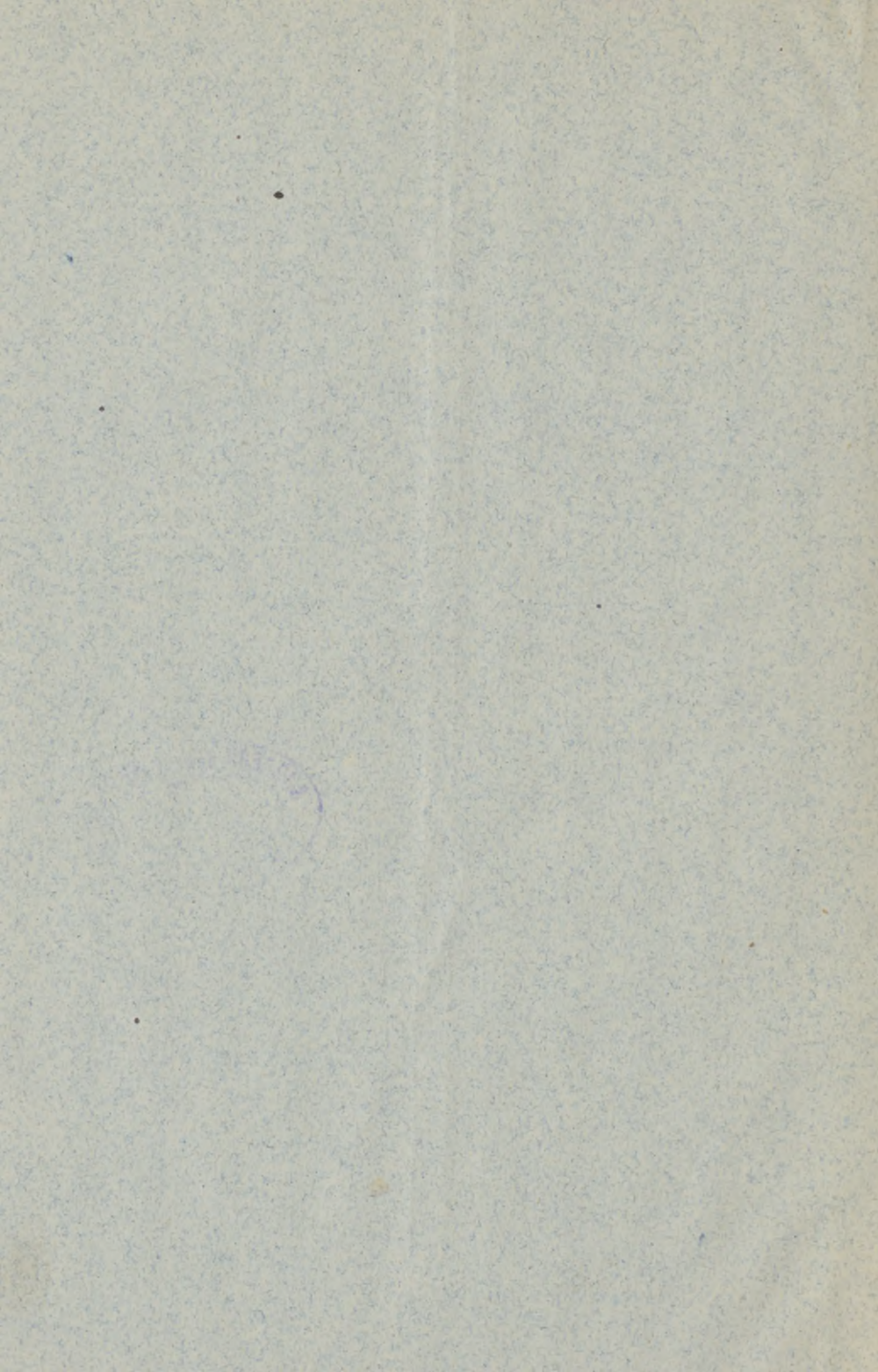
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## THE TREATMENT OF SUPERFICIAL AND INFILTRATING VARIETIES OF PAVEMENT EPITHELIAL CARCINOMA OF THE EYELIDS.

BY ROBERT SATTLER, CINCINNATI, O.

THE importance of epithelial neoplasms of the palpebral area, entitles them to a most careful consideration, principally on account of their well-known progressive and destructive tendencies. Interference of some kind, to prevent almost inevitable dangers from resulting deformity of the lids and defective protection of the globe, is imperative in those cases in which the history and local alterations of the growth render a successful arrest or removal probable. In other more advanced cases, with extensive infiltration and destruction of tissue, in which the local changes preclude the prospects of a radical disappearance, at least relief from suffering and perhaps a retardation of an otherwise uninterrupted progress can be effected by prompt appropriate, measures.

The comparative frequency of epithelial growths in this locality, among persons predisposed by age, heredity, and other causes to their occurrence; the almost uniformly insignificant beginning and frequently overlooked progress; the well-known latent or non-progressive tendency, comprising often a period of years and followed by a sudden and uninterrupted destructive advance, are all well established characteristics which can only receive a passing reference. For the same reason the clinical, pathological and histological features of the different forms of pavement-cell, cylindrical, and glandular cell carcinoma are not referred

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to, as it is the purpose of this communication to refer to the operative treatment of these treacherous neoplasms, and to give the results of personal observation and experience in the management of the most frequent forms of the disease in this locality, *i. e.*, the superficial or lobulated, and the infiltrating or tubulated forms of pavement-cell epithelial carcinoma.

The methods to effect the removal of these growths are many and various, and include the caustics, the knife, thermo-, galvano-, and the actual cautery. That all these methods, either separately or combined, have in a large proportion of cases, accomplished the purpose for which they were resorted to, must be admitted, but on the other hand it must also be conceded that many and perhaps the larger proportion of cases have eluded successful treatment by the above means, even though they were clearly indicated and were resorted to early, promptly, and thoroughly.

Unsatisfactory observations, the result of a limited personal experience, induced me to test more extensively the value and merits of the method of scraping, suggested and practised by Prof. Volkmann, for the arrest and treatment of lupus nodules and ulcers, but also resorted to by him and other German surgeons for the removal of epithelial tumors.

Among the first cases observed was one of a superficial lobulated epithelioma of the lower lid, which had defied the use of caustics,—zinc. chlor., acid. monochloroacet., arsenic pastes, etc. The patient persistently refused excision, which it may be inferred, was at once proposed when she was first examined. Impressed with the inefficacy of caustic agents and the needless pain their application produced, I resorted to the plan of scraping the infiltrated area with Volkmann's steel spoon or scoop, without informing my patient of its surgical nature. The scraping was thoroughly done and the result was excellent. Seven years have elapsed and no return has been noticed. The neoplasm was situated in the lower lid, was oval in shape, and about one and one half *cm.* long and one *cm.* broad. Its upper edge approached to within four *mm.* of the lid margin,—the outer two thirds of which were everted by the traction and weight of the growth,—and it extended obliquely toward the centre of the cheek. The patient was forty-six years old and in good general health. She had noticed an

"irritable wart," which was situated in the site of the affected area, for eight or nine years, but only within the last fourteen or sixteen months had it increased in size, accompanied by a tendency to ulceration and local stinging and discomfort. The histological structure of the growth consisted of closely packed groups of flat or pavement epithelial cells imbedded in a vascular stroma, traversed by cicatricial bands and warts or fringe-like projections.

The cicatrix which followed this radical scraping was smooth and superficial. The ectropium which existed before the operation, was made to disappear effectually by stretching the scar.

In the second case, a man, *æt.* fifty-two, the growth was of more than ten years' standing. It had invaded the outer two thirds of the right upper lid and almost the entire border of the lower lid. Necrosis of certain parts, indolent ulcerations covered with crusts and ectropium, were prominent features of the infiltration. The cutaneous area of the right lower lid, side of the nose, malar region, and cheek, had been the seat of destructive ulceration, which had transformed this region into a thin, clean, shining white surface. At its lower termination, a wall of waxy nodular elevations, concealing foci of ulceration was arranged in a semicircular manner, presenting all the characteristics of both the progress and results of a rodent form of ulceration, which had started from and was grafted upon the specific growth.

Thorough excision, combined with a plastic operation was resorted to without delay. No reaction followed, and the immediate result of the operation was favorable. In four months a return in the outer and also the inner portion of the upper lid, near its border, was noted. Both points were speedily excised. After this operation, without a plastic to cover the defect, only about one fifth of cilia-bearing lid border of the upper lid remained; the entire border and adjoining region of the lower lid had been removed. At the same time, the semi-circular wall of nodular waxy elevations was attacked and thoroughly scraped and excavated. Several attempts followed the first one, and accomplished an arrest of the ulcerative process in this region. In the course of five months fresh foci of the neoplasm developed, particularly near the inner canthus. The steel scoop was from this time exclusively resorted to to combat the destructive tendency of the disease, to prevent greater deformity, and to relieve pain. Not alone was the removal of the infiltrated portions more easily accomplished, but it was also attended with, less pain and reaction

afterwards, and was followed by a less dense and more elastic cicatricial covering. It did not or could not completely arrest the disease, but it opposed and modified its progress in a variety of ways, and was at the advanced stage of the growth more applicable and effectual than the knife or caustics.

A third case also demonstrated to me the advantage of the scraping over the use of the knife; yet I venture to say that in this locality the knife would have been the choice of any surgeon to effect the removal of the growth.

A clergyman, aged fifty-six, sought relief from a chronic dacryocysto blennorrhœa. In treating the tear-sac trouble, I discovered a suspicious eroded warty growth in the left posterior auricular region. The patient was aware of its presence, and said it had existed for years, and that at times it caused him great annoyance. Microscopic examination revealed its epithelial nature. Immediate removal was advised, to which the patient willingly assented. The growth was about  $1\frac{3}{4}$  cm. long and  $1\frac{1}{4}$  cm. broad; it had invaded only the skin. It was circumscribed by a deep incision and removed, together with a broad border of healthy skin. Feeling secure, on account of the liberal excision, that this would end the neoplastic formation, I was not a little surprised to find, after four months—the disease for years antedating the operation having shown no special tendency to advance,—a return in connection with the cicatrix of the first operation, and also a new infiltration of skin in its vicinity. Immediate excision with most liberal attachments of healthy skin was practised. Complete union and no reaction followed. After the lapse of eight months, not alone were points of infiltration to be discovered in the scars of the two former operations, but numerous new points existed in addition. The knife was abandoned, the scraping-spoon being used in its stead. The ease of manipulation, diminution of pain, and absence of reaction impressed me so favorably, and accomplished so completely the disappearance of this troublesome affection, that I determined to give it an extensive and systematic trial, in all typical and suitable operative cases of epithelioma, in dispensary practice.

From March, 1878, all cases in which operative interference was indicated were treated according to this method. During this period thirteen cases were observed. Eight belonged to the superficial and five to the deep or infil-

trating variety. In nine patients the scraping method was exclusively practised; in three it was combined with excision. In some a single scraping sufficed; in others several were necessary to bring about an arrest of progress or an effectual disappearance. All were examined microscopically, and were found to belong to the superficial lobulated and infiltrating or tubulated variety of pavement-cell or flat epithelial carcinoma.

The eight cases belonging to the superficial variety could be subdivided, according to their most distinctive alterations, into cicatricial (2), necrotic (3), warty (2), and rodent (1); of these, four were situated on the lower lid, one at the inner canthus, involving the caruncula lachrymalis and semilunar fold, one at the outer canthus, involving also the lower lid, and two on the side of the nose, extending over the tear-sac region. All these cases were treated by the scraping method, and all recovered. Three of this number had received previous treatment by excision and caustics.

Five belonging to the infiltrating, presented all the histological characteristics of this variety; these were subdivided into the simple tubulated (2), papillomatous (2), and rodent (1).

Four were treated by excision and scraping combined. In one case exenteratio orbitæ was necessary, and most effectual work was accomplished by the scraping spoon.

The tubulated varieties involved the lower lid and burrowed along the inner wall and floor of the orbit. In both cases the disease began in the lower lid; the first<sup>1</sup> was excised and thoroughly scraped, and up to the present time, a period of several months, developed no activity.

The second case began in the lower lid, destroyed it entirely, invaded the upper lid, and pushed its destructive course along the inner wall of the orbit and attacked the globe. This case had been in the hands of competent surgeons, and also so-called cancer quacks. It would be difficult to say what had not been done for this poor woman. When she applied for relief there was so much infiltration

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<sup>1</sup> This case came to the clinic during my absence, and was treated during its entire progress by Dr. S. C. Ayres.

near the inferior margin of the orbit and on the globe, that to facilitate the operation I excised this mass and carefully detached with a pair of scissors the exuberant tissues adhering to the globe. After this the knife was not again used, and the remaining portions were removed by the aid of the scraping spoon, even from the sclera. The scraping was repeated in different parts of the growth, at least twelve times during a period of almost three years. During this time the patient enjoyed comparative freedom from suffering, danger from hemorrhage was lessened, enucleation of the extensively infiltrated and adherent globe was not necessary, and the advance of this malignant neoplasm was arrested and markedly modified. Each scraping made to arrest some fresh or recent manifestation of the disease was attended and followed by the best possible results under the hopeless circumstances. Recently, however, either in consequence of latent inherent activity of the growth, or the result of impaired health, physical exhaustion, or age, it has again developed most startling activity.

The papillomatous variety was treated by exenteratio orbitæ and thorough scraping of the bony walls. The globe and all the tissues of the orbit, including both upper and lower lids, were involved in the disastrous process.

For eight months no return was observed, and the patient was improved in every respect; a recent communication however, refers to the not unexpected but, certainly delayed return of the disease. The second case, the disease being not so extensive and with less malignant tendencies, was more favorably influenced by the scraping method of treatment.

The rodent variety was an unusually extensive and disastrous illustration of the disease. Interference was not deemed indicated or justifiable. All the structures of the orbit had succumbed to the destructive process, the soft parts over cheek, nose, frontal, temporal, malar, and anterior auricular region had disappeared, and in addition the bony structures were extensively and hopelessly infiltrated.

As already stated, the scraping method, by the aid of sharp steel scoops or spoons, of variable size and shape, was



the method, even in the infiltrating forms, which was relied upon to bring about an arrest or a complete disappearance of the disease. If it is stated that excision was performed, it was only resorted to to render the removal of large areas of infiltration more speedy. The attempt, however, to eradicate, or at least arrest, the disease in those portions which were accessible to the influence of the instrument, was made by the former method.

The presence of microscopic foci, notably in the glandular structures of the skin or in the connective tissue of the subcutaneous region, or the lymphatics, etc., surrounded by areas of perfectly healthy tissue, would, of course, oppose a complete removal of these concealed and not to be discovered hiding-places of the disease, as effectually as the knife or caustics. In this locality particularly, although the rule of operative art and experience is not to spare tissue, owing to the well-known treacherous characteristics of these growths, it is a point of paramount importance to save as much healthy tissue as possible, and avoid dense scars on account of the unsightly deformity and dangers to the globe. Therefore, a reckless excision is as unjustifiable as a too cautious one. For this reason this method appears to me particularly applicable to this locality. It is easy of accomplishment, little or no reaction is to be feared, and the adjacent healthy or non-infiltrated regions are not removed, and the defect after the scraping is not much greater than the infiltration before it.

All the cases referred to, with the exception of one, were observed in dispensary practice, and if at first the method was not extensively resorted to in private practice, it was because the trust and safety in the removal by the aid of the knife was too secure in my mind to permit of its being supplanted by a method not extensively practised and arousing doubt and fear as to its real efficacy. I may add that after it had been thoroughly tested, and its advantages established by the observations referred to, and in addition corroborated by a number of cases in private practice, it is now looked upon as a most valuable and reliable method of management; in many cases, without doubt, far superior to

excision, caustics, etc., and in others, again, inferior to the latter methods. Yet it is applicable in so many cases, that it deserves recognition and a trial where other methods have failed, or where the knife and caustics are no longer of advantage, and also in a large number of cases where it may be resorted to in conjunction with them.

My observations prompt the following suggestions: When thoroughly accomplished the scraping method is of particular advantage and superior to the knife, and, therefore, should enjoy preference and its principal application in the management of the different varieties of *superficial lobulated pavement* epithelial cancer of the lids or adjoining regions, for the following reasons:

a. The defect of tissue after is not greater or deeper than the infiltrated area at the time of operation.

b. Little or no danger from inflammatory reaction.

c. The formation of a smooth superficial covering of the excavated area, which on account of its pliable and elastic nature interferes least with the protective function, and secures also better adaptation of the altered lid to the globe.

d. The invaluable advantage of being able to observe the cicatrized base of the recently affected area, and, therefore, discover easily and early any reproduction of the growth.

e. It is rarely necessary to resort to plastic operations.

Other advantages are: the ease and readiness of performance of the method, less pain during and after the operation, avoidance of dense or extensive scars and those dangers which attend the healing of the wounds.

In the *deep or infiltrating forms* it is of the greatest advantage when combined with cautious excision. It can be resorted to alone with prospects of success only in a limited number of cases of this variety of the disease.

This method, either alone or combined with excision, has the valuable and not to be overestimated advantages:

a. That it accomplishes the removal of part or parts of the growth with the least sacrifice of tissue.

b. That it is as safe and more easily accomplished in many cases.

*c.* In those cases where excision promises little or nothing it should have the preference, because it accomplishes as good a result with less pain, hemorrhage, and deformity.

*d.* In those cases where excision is clearly indicated, and rational promptings for its selection exist, it may be advantageously combined with it, as it can remove traces or concealed foci of infiltration which are beyond the scope of the knife.







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