

Immediately after the operation, it is my practice to cover the operative field with an unguent, comprising paraffin, wax and petrolatum, which acts not only as an occlusive covering, but also as an antiseptic, in that it envelops any organisms present in the skin and renders them inert.

A sound (24 F.) is passed on the tenth day, and one of larger size a week later. It is my experience that no further instrumentation is necessary.

CONCLUSIONS

1. Since all, or nearly all, strictures occur anterior to the superficial layer of the triangular ligament, this operation can easily reach them. Extravasation of urine or infiltrating abscesses are not to be feared in a surgical procedure that does not disturb the membranous or prostatic urethra lying posterior to the triangular ligament.

2. An operation which is directed precisely to the diseased area, and which does not inflict injury to any other part of the urethra, must be conceived as a logical step toward a cure, and as superior to procedures heretofore in vogue.

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CARCINOMA OF THE EXTERNAL EAR

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To the uninitiated, the successful treatment of early, superficial carcinoma of the external ear may seem a comparatively simple matter; but after one has acquired a little experience in combating even the

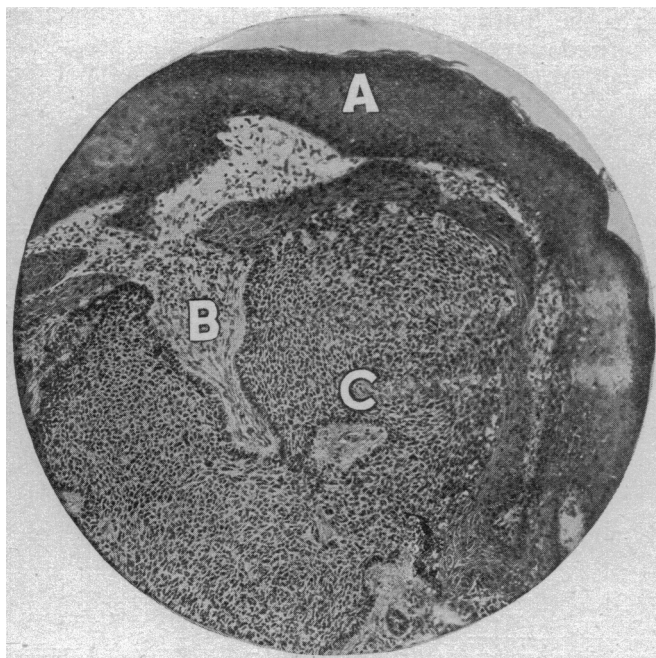


Fig. 1.—Basal-cell carcinoma of helix: A, epidermis; B, connective tissue of dermis; C, masses of cancer cells; hematoxylin-eosin stain; low magnification.

milder type of the disorder in this region, a pessimistic attitude generally replaces the former optimistic one.

The difficulty of bringing about a cure in these cases is largely due to the fact that the skin lies very close to the cartilage; and even if the latter escapes direct

cancerous involvement, the chronic inflammatory changes to which it is subjected, together with the poor blood supply, prevent prompt healing, even after the removal of the parent cause of the trouble.

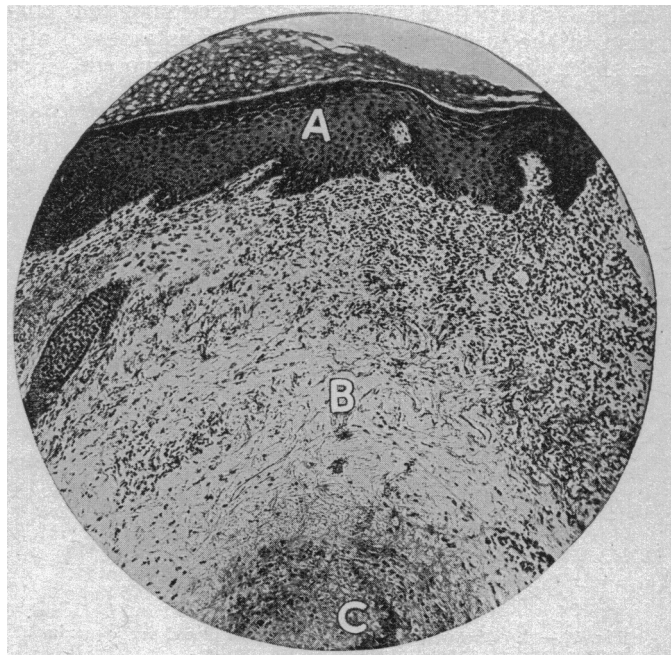


Fig. 2.—Very early basal-cell carcinoma of ear, showing effects of radium treatment: A, cellular infiltration; B, changes in connective tissue; elastic fibers broken and twisted; C, cartilage; hematoxylin-eosin stain; low magnification.

During the past two years, I have had opportunity to study seventeen cases of carcinoma of the ear. All the patients were men. The youngest was 28, the oldest 81 years of age. In five cases studied microscopically, all the growths were of the basal-cell type.

Owing to the character of the structures involved, the histologic picture differs in some minor respects from that seen in basal-cell carcinoma of other parts of the body.

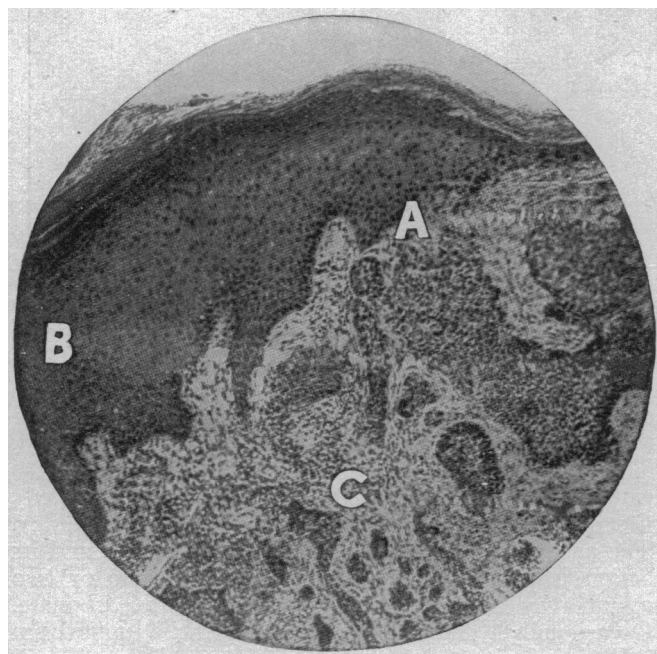
In thirteen instances, the growths had developed from seborrheic keratoses, usually of the keratotic variety, and in nearly every case there was a history of primary injury, such as a cut or a bruise. Eleven of the patients, at one time or another, had suffered from frost-bite.

All the lesions developed at some point above the level of the floor of the external auditory meatus. In no instance was the lobe primarily involved. The upper portion of the helix was a favorite site for the development of the lesions, probably because of its exposed position. Occasionally the cranial surface of the pinna was attacked, in one instance following an injury from a spectacle bow, and in another a slight cut from a razor, inflicted by a barber while trimming the hair.

There was a striking similarity in the case histories. Following a slight injury of the ear, generally at some point on the helix, the patient developed a small, superficial ulcer, which healed very slowly. The retarded healing was, in a measure, the fault of the patient himself. If the scab was not deliberately scratched off, because of the slight irritation to which its presence gave rise, it was accidentally rubbed off by the too vigorous use of a rough towel. Finally, the lesion apparently healed, but a small keratosis developed at the site of the former wound.

The growth of the little hyperkeratotic tumors may have been retarded by the frequent application of grease or petrolatum; but in the course of months or years, a large percentage of them became malignant. The subjective symptoms were at first comparatively slight, and consisted of itching and burning of variable degree, easily allayed by a mild antipruritic. Later, as the carcinoma developed, and the deeper structures were invaded, the patients frequently complained of a throbbing, penetrating pain, which often involved the entire side of the head, and which only narcotics would relieve.

The plan of treatment varies with the character, stage and extent of the lesion. In growths of the prickle-cell type, early and radical excision is the best and safest course. The basal-cell tumors are less serious, and more weight can be given to the importance of a good cosmetic result when it comes to dealing with them.



*Fig. 3.—Early basal-cell carcinoma of ear: *A*, strand of cancerous tissue extending downward from basal layer of epidermis into corium; *B*, thickened prickle layer; *C*, derma, with masses of new growth lying between the bundles of connective tissue; hematoxylin-eosin stain; low magnification.

As a prophylactic measure, the ears should be suitably protected from cold during the severe winter months. Frost-bite may not be a direct causative factor, but repeated injury from this source undoubtedly predisposes to cancer.

Even slight lacerated wounds of the ear should receive proper surgical attention. In treating rough, jagged injuries of the skin, the edges should be pared down and carefully approximated, and the wound properly closed and dressed.

Seborrheic keratoses, which are often the precursors of the more serious lesions, can sometimes be successfully combated by the daily use of a mild keratolytic, such as salicylic acid ointment (10 per cent.). Also carbon dioxid snow is a valuable remedy in some instances, although its field is limited, and in suspicious or advanced lesions, more harm than good is liable to follow its use. This is due largely to the fact that its destructive action is not that of a direct escharotic, but a sequel to the acute inflammatory changes that follow intense refrigeration.

The widely dilated vessels, together with the lowered vitality of the immediately adjacent tissues, tend to extension rather than eradication of the lesions attacked. The actual cautery is a much better agent

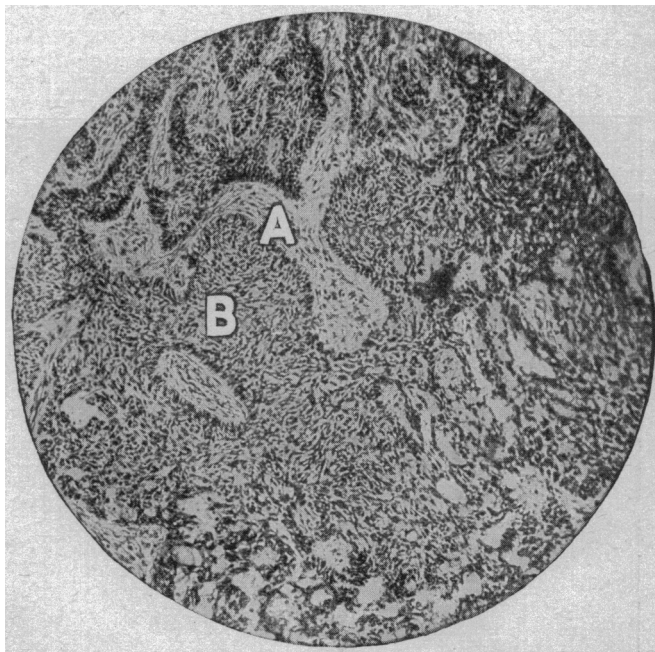


Fig. 4.—Late basal-cell carcinoma of ear: *A*, connective tissue of derma; only a bridgework remains; *B*, masses and strands of cancer cells penetrating the fibrous network; hematoxylin-eosin stain; low magnification.

in these intermediary or frankly malignant cases. The destruction of the lesion is certain, for, as Hazen, Bloodgood, MacKee and others have shown, the efferent vessels are promptly sealed off, and the liability to

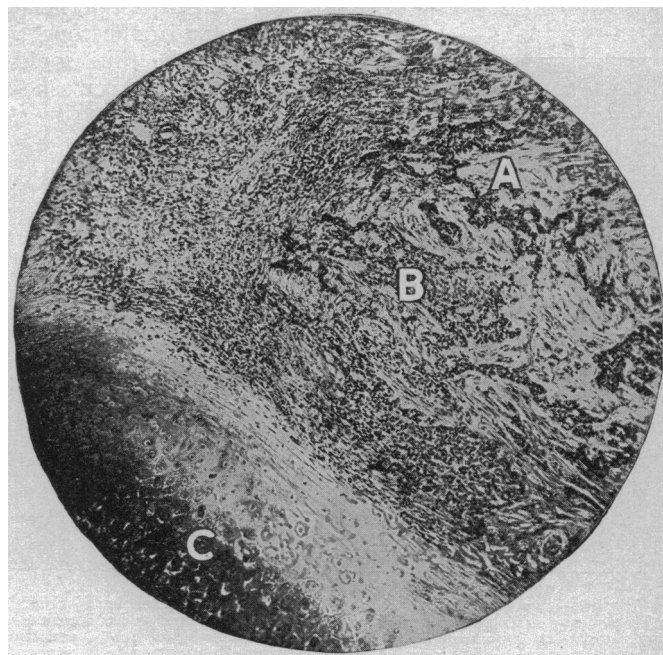


Fig. 5.—Late basal-cell carcinoma of ear, showing involvement of cartilage at *C*: *A*, disorganized strands of connective tissue; *B*, irregular masses of cancer cells; hematoxylin-eosin stain; moderate magnification.

peripheral extension is reduced to a minimum. Unfortunately, the tissues in this vicinity do not heal very promptly following actual cauterization, and the ensuing burns are frequently a source of extreme discomfort to the patient. Fulguration is painful and, as

ordinarily practiced, unreliable. Of the various chemical caustics, arsenous oxid, as recommended by Robinson, is probably the best; but when employed in this locality, it is open to the same objection as the actual cautery.

Prior to the involvement of the cartilage, many of the cases respond very satisfactorily to roentgen-ray

In the treatment of basal-cell carcinoma of the ear by means of radium, a severe reaction is seldom necessary, and in the superficial cases should always be avoided. The skin in this region is very thin, and affords only slight protection to the underlying structures. The inflammatory changes that occur as a result of prolonged exposures subside very slowly, and weeks



Fig. 6.—Basal-cell carcinoma of ear involving cartilage of eighteen months' duration; very painful.



Fig. 7.—Multiple basal-cell carcinoma of the ear; of three years' duration; no lymph node involvement; radical operation, followed by cure.

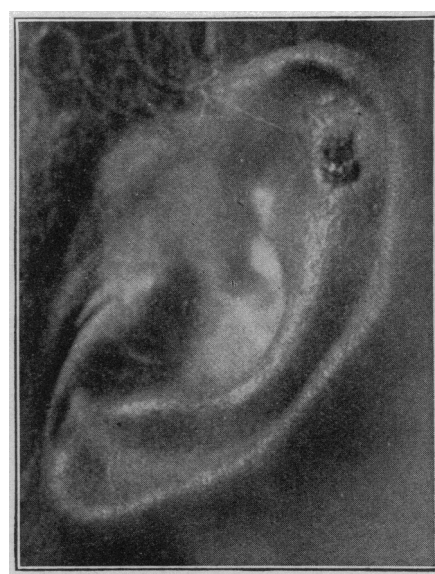


Fig. 8.—Carcinoma of the ear, showing ulcer that remained after radium therapy. Lesion healed under the action of soothing local applications in seven weeks; no recurrence had taken place one year later.

treatment and especially to radium. If the former agent is employed, only the intensive method should be used, otherwise the result is liable to be disastrous rather than beneficial. I once saw a case of superficial carcinoma of the concha which at the time could readily have been successfully removed by a competent surgeon in

or even months may elapse before the ulcer marking the site of the former carcinoma is entirely healed. The healing process can sometimes be expedited by the cautious use of liquor hydrargyri nitratis, a remedy first suggested to me by my friend, Dr. T. S. Blakesley. The agent is applied by means of a tooth-pick, and its action is promptly halted at the end of one or two minutes by a liberal coating of sodium bicarbonate. Occasionally, diluted citrine ointment (unguentum hydrargyri nitratis, 1 part; petrolatum, 7 parts) will prove helpful at this stage of the disorder. Cleanliness is essential, for, as Dr. Du Noüy has said, the ideal conditions of perfect and rapid healing are realized when a wound is kept practically sterile, or deprived of pathogenic micro-organisms, as cocci, diplococci and streptococci.¹



Fig. 9.—Basal-cell carcinoma of the ear in a man of 70; the growth was destroyed by means of radium, but the lesion healed very slowly, and was extremely painful.

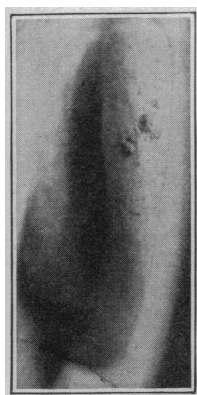


Fig. 10.—Seborrheic keratosis on helix which developed following slight cut from razor and ultimately became malignant.

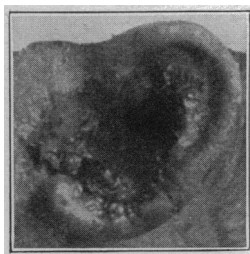


Fig. 11.—Early basal-cell carcinoma of ear, showing condition after patient had received more than 100 exposures to the roentgen ray.

about fifteen minutes. Nine months later, I again saw the case, but during the interval the patient had received more than a hundred brief roentgen-ray exposures in and around the affected area. The combination proved too much for him, however, and the man died.

In those cases presenting cartilaginous involvement, I have found both radium and roentgen-ray treatment useless. Prompt excision is the best and safest plan, and in the hands of a skilled operator, the results are generally good. As a rule, the ensuing deformity is comparatively slight, and the patient is promptly relieved of a disorder that is liable ultimately to prove both distressing and dangerous to life.

1. Du Noüy, P. L.: *Am. J. Physiol.* **49**: 121 (June 1) 1919, cited in *The Search for Cicatrizing Substances*, editorial, *J. A. M. A.* **73**: 428 (Aug. 9) 1919.

Altruism.—Sympathy for manifest evils, and self-sacrifice for others have no limit when the emotions are directly stimulated.—Brend.