

XVII.—EPITHELIOMAS DEVELOPING ON LUPUS ERYTHEMATOSUS

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While the development of epitheliomas on lupus erythematosus has been reported by a number of writers, it has always been with emphasis on the rarity of this condition. Four cases of carcinoma on lupus erythematosus, appearing on the service from which the subjects of these studies are drawn, should be added to those so far reported. Because of the nature of a skin and cancer clinic, where these patients, with the exception of one, presented themselves because of carcinoma, any conclusions as to the frequency of carcinoma on lupus erythematosus must be of questionable value. During the past ten years, 110 cases of lupus erythematosus appeared, including the four of this report, making the incidence of the occurrence of carcinoma on lupus erythematosus 3.6 per cent. at this clinic.

In an excellent exposition, Pringle¹ refers to previous reports of cases. His own report, however, is most complete.

From the chronicity of lupus erythematosus and the prolonged irritation from treatment, one might expect the resulting continuous trauma to lead to frequent development of carcinoma on such a favorable base. Wolbach has shown, in his work on carcinoma after roentgen-ray dermatitis, that a period of from eight to ten years is required for the development of carcinoma, and that the principal change is primarily vascular. All traumas when sufficiently prolonged are potentially a carcinoma stimulus, so that lupus erythematosus with its years of chronic inflammation is, therefore, a field containing potential carcinoma and should be so considered.

Possibly because a patient has for years reconciled himself to, or acquired a tolerance for, the personal discomfort of a chronic lupus erythematosus the added appearance of epithelioma fails, for some time at least, to arouse him to seek further relief, and in many cases the condition goes on to a fatal ending without further diagnostic differentiation. We must conclude from cases already reported and

* Studies, reports and observations from the dermatological department of the Barnard Free Skin and Cancer Hospital and the School of Medicine, Washington University, St. Louis, Mo., U. S. A., service of Drs. M. F. Engman and W. H. Mook.

1. Pringle: Multiple Epitheliomas Developing on Lupus Erythematosus, *Brit. J. Dermat.* **12**:1 (Jan.) 1900.

from those in this report, that multiple epitheliomas, with a rapid spread of the cancerous disease when on a lupus erythematosus base is the rule, and that the prognosis is not promising; also that factors before mentioned—the attitude of the patient, failure of proper differential diagnosis and rather rapid fatality—probably tend to prevent more frequent notation of the occurrence of this condition.

REPORT OF CASES

CASE 1 (Fig. 1).—N. H., aged 82, a white woman, was first seen Nov. 10, 1917. At that time she gave a history of lupus erythematosus for the past

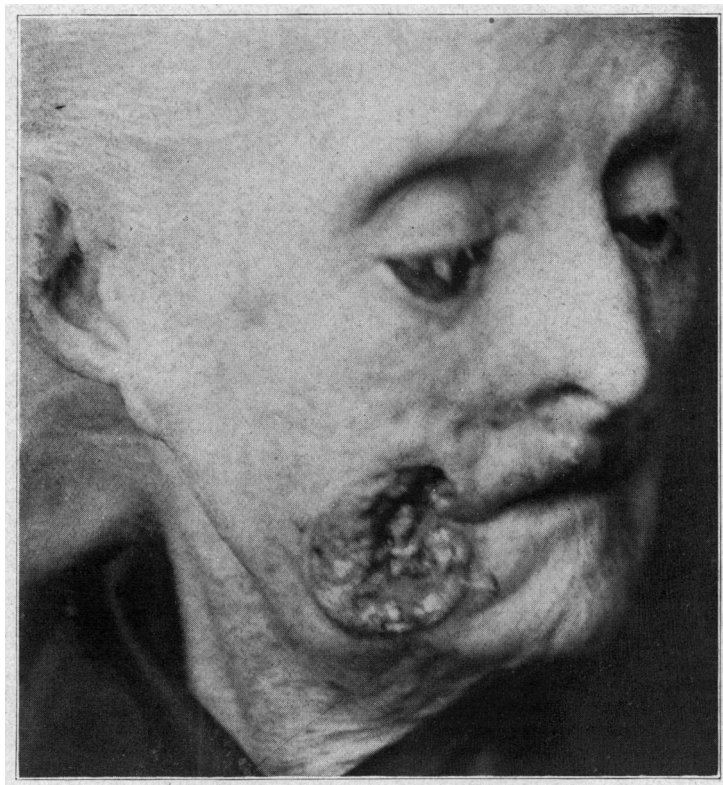


Fig. 1 (Case 1).—Extensive lupus erythematosus scarring and carcinomatous lesion.

twelve years. The entire face was covered with the resulting scar. Four or five months ago a small pimple appeared on the right cheek, near the angle of the mouth. This soon showed signs of growing, according to the patient. Now there is a deep ulcerated lesion about 0.5 cm. deep and 4 cm. in diameter, with a well defined, nodular, pearly border. The glands of the neck are much involved.

Because of the patient's age and generally poor physical condition she was treated with the roentgen ray only. There was no improvement when the patient passed from supervision Dec. 7, 1917. She died Dec. 25, 1917 (cause unknown).

CASE 2.—H. B., aged 60, a white man, gave a history of lupus erythematosus beginning twenty-five years ago on the left cheek. He said it did not "trouble or bother" him much until recently, and after he had applied blue vitriol. At

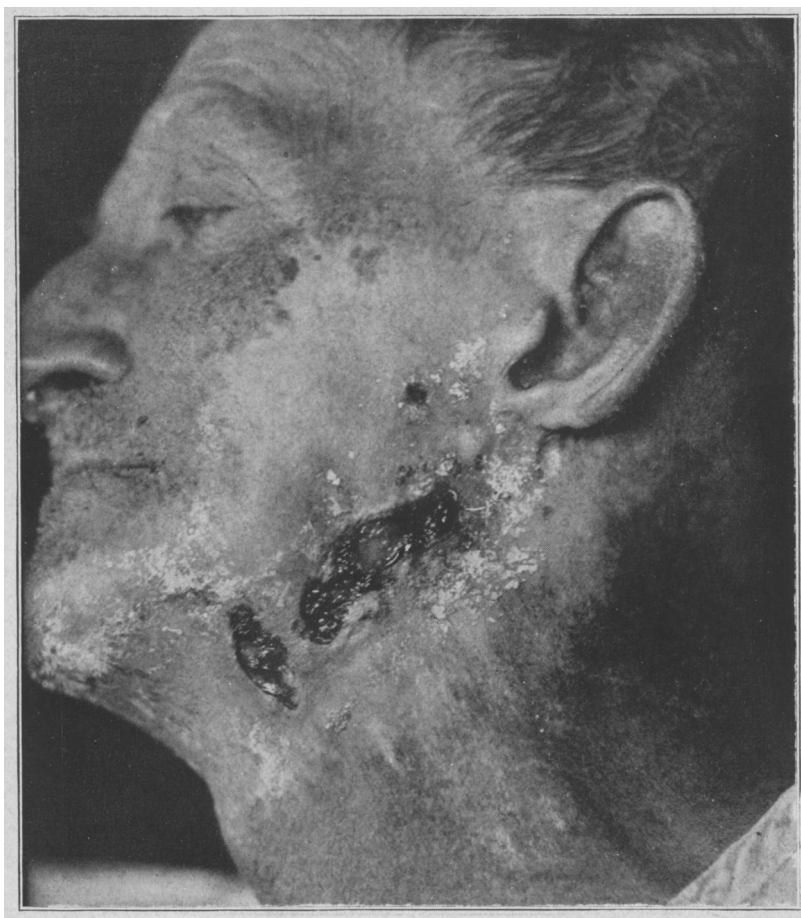


Fig. 2 (Case 3).—Epithelioma on lupus erythematosus.

this time, May 17, 1915, examination showed an erythematous scarred lesion on left cheek 2.5 cm. wide and 5 cm. long. There was some crusting and scaling within the lesion, and where the scales were raised, small projections were seen extending down into the follicles. No positive carcinomatous lesions were observed. Treatment consisted of salicylic and zinc oxid salves, with recommendation for roentgen-ray treatment for which the patient failed to return.

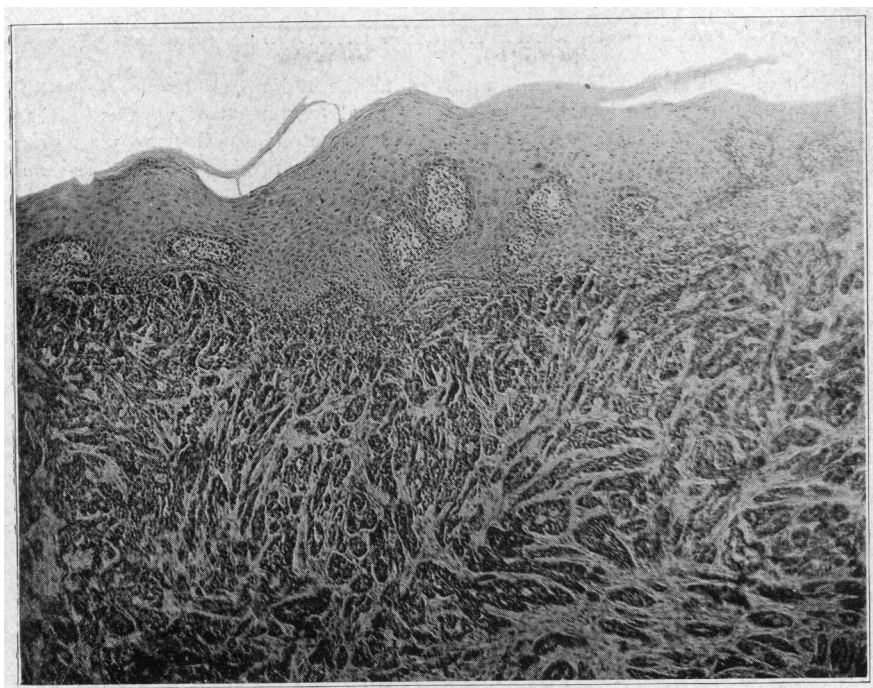


Fig. 3.—Low power section from Case 3.

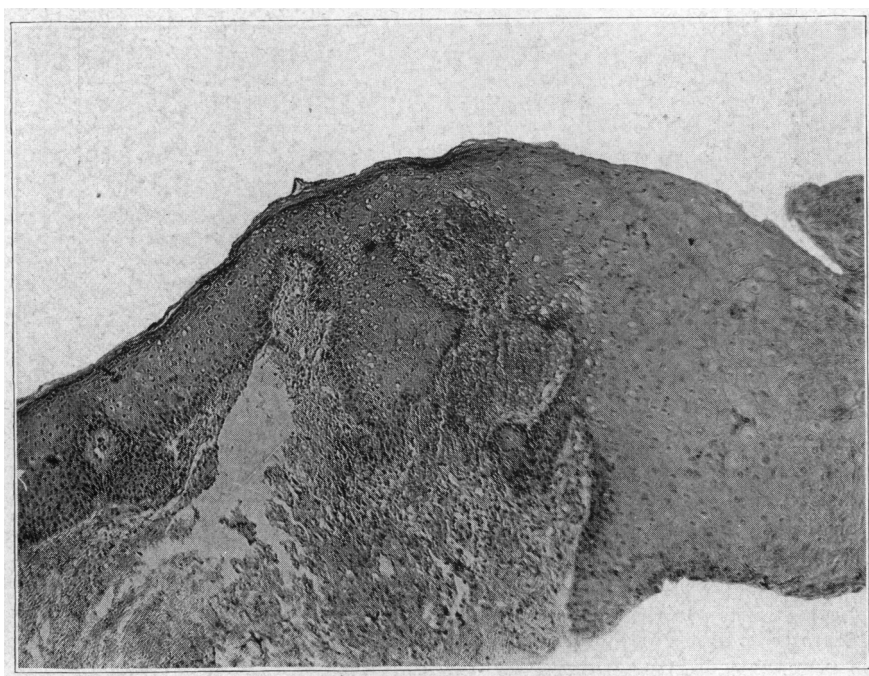


Fig. 4.—High power section from Case 3 at beginning of cancerous area.

On June 6, 1919, the patient returned to the radium clinic in answer to follow-up cards. He had been using only local treatments of various salves. There was now a red, smooth scar, with numerous small pearly nodules along the border, evidently epitheliomas. The patient was given one radium application and then disappeared from our observation.

CASE 3 (Fig. 2).—T. D., aged 60, a white man, was treated May 29, 1908, for a lupus erythematosus on the face. He gave a history of twenty-four years' duration of the disease and insisted that it began in a razor cut. The patient did not return again for several years. On Feb. 9, 1915, he again



Fig. 5 (Case 3).—Numerous recurrences.

reported, and at this time the whole of the left cheek was involved in an eczematous ulceration, which was undergoing epitheliomatous degeneration and had destroyed part of the left ear. An ulcer at the angle of the left jaw was distinctly of the rodent ulcer type. There were some senile keratotic lesions on the right cheek and on the backs of both hands. The patient was treated with roentgen ray and at intervals with applications of Lassar's paste, xeroform and silver nitrate salves. There appeared to be slow but gradual improvement. Oct. 14, 1915, the lesion was curetted and skin grafted successfully. The microscopic diagnosis of the curettement was: basal cell carcinoma of the face.

Dec. 8, 1916, the wound had healed with the exception of a very small ulcer on the skin.

On Oct. 24, 1918, the patient again returned after a considerable lapse of time. There were now two ulcers on the left lower lip 4 mm. in diameter, several minute ulcers on the left temple and one behind the right ear, about 3 mm. in diameter. In the anterior part of the old scar there was an ulcerated area with rolled edges and irregular nodular floor, measuring from 2.5 cm. below the mucocutaneous margin of the lower lip, down on the midline of the neck to the thyroid cartilage and from the midline of the neck 4 cm.



Fig. 6 (Case 4).—Epithelioma on lupus erythematosus.

to the left. This the patient says has "gradually grown from a small scab." The glands on the right side of the neck were palpable. The patient was again referred for roentgen-ray treatment. Up to Dec. 9, 1918, there was no improvement; the ulceration measured 5 by 10 cm. on the neck and under the chin. The edges were sharp, nodular and pearly. Cautery and radium treatment appeared to effect some improvement. Improvement progressed so that the patient stayed away for a period of nearly eleven months.

On Nov. 10, 1919, he was again seen and at this time biopsy again brought out a diagnosis of basal cell carcinoma of the face. Figures 3 and 4 are microphotographs of sections made at this time. Microscopically these show the

lesion to be typical basal cell carcinoma. In the scar area, where no cancerous tissue is found, the section shows only an atrophic cicatricial condition; there is marked increase of fibrous connective tissue in the corium with total disappearance of all normal follicular or glandular structure. The epidermis shows a rather wider than normal stratum granulosum, though all the cells are not well defined and have large deeply staining nuclei, showing only a slight tendency to keratinization. The papillary layer between the epidermis and corium is wholly lost.

As one approaches the carcinomatous area there is an irregularity and thickening in the basal cell layer; at the edge of the carcinoma the irregularity of arrangement of the basal cells increases and there are papillary down-growths that show clearly the infiltrating character of the carcinoma. There is increased vascularity with some small round cell infiltration about this area of new growth induced, no doubt, largely by the active process of necrosis in the center of the lesion rather than being primary or coincident only to the new growth.

When last seen this patient showed numerous recurrences and metastases (Fig. 6).

CASE 4.—W. D., aged 41, a white man, has had lupus erythematosus for the past twenty-four years, involving the butterfly area of the face. Following injury to the nose by a tree branch two months ago, the patient noticed growth beginning at the site of the injury. At this time examination of the patient showed typical lupus erythematosus scarring on the nose and cheeks, and on the ridge of the nose there was a verrucous appearing lesion, raised about 6 mm., and its size was about 3.5 by 2.5 cm. The edges were sharply limited with a nodular pearly border.

The patient was given radium application, and on May 25, 1920, there was apparently a complete disappearance of the cancerous lesion.