SQUAMOUS-CELL EPITHELIOMA OF THE THUMB:
A CASE REPORT

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Reports of malignant tumors of the fingers have appeared frequently in medical literature, but most of these have described cases of sarcoma, melanosarcoma, or carcinoma secondary to roentgen, radium, or acid burns. Primary carcinoma of the fingers with no demonstrable etiological factor has rarely been reported.

If chronic irritation is considered an important and definite factor in the origin of cancer, then the fingers, which are used so constantly by the toiling laborer, and exposed to persistent chronic irritation, should be the seat of frequent malignant lesions. Yet, while the dorsum of the hand is not an uncommon location for carcinoma, the fingers are relatively rarely affected. That chronic irritation occasionally produces carcinoma on the fingers, however, is shown by Stahr's report of carcinoma on the thumb of a cobbler, probably due to injury with the awl, and Ullmann's description of carcinoma on a ring finger, due to long continued irritation from a ring. The case here reported is a squamous-cell epithelioma involving the thumb, in a twenty-seven-year-old female. Since no known causative factor has been found, it is of exceptional interest.

In the Radiation Therapy Department of Bellevue Hospital, where the bulk of cases treated are malignant tumors, only one out of 6,400 cases proved to be a carcinoma of the finger. The earliest case of carcinoma of the finger was reported in 1827, by Fereday, an English physician, who described, in a vivid manner, a case of carcinoma of the thumb in a fifty-five-year-old man whom he observed during a period of two months. At the end of that time amputation was performed, various non-surgical attempts at healing having proved unsuccessful. Velpeau presented a case in 1850. In 1858 Homans described a lesion occurring on the terminal phalanx of the thumb of a seventy-year-old physician. In the same year Parmentier reported a remarkable case of six tumors, all well circumscribed, occurring on several fingers of one hand of a fifty-two-year-old woman who had sold fish for many years. There were no symptoms at any time, of pain, pressure, or
inhibition in articular movements. The tumors were removed surgically with relative ease, and microscopic examination showed them to be squamous-cell epitheliomata. Additional cases have been reported by Fergusson, Barton, Seeley, Gross, de Chavasse, Franke, Webster, Lunn, and Blakeway. The youngest patient was a French soldier, twenty-two years old (de Chavasse). Two of the reported cases occurred in patients in the third and fourth decades, and eight cases from the fifth decade upwards. The thumb was involved in eight cases; the third and fourth digit in one case each.

Figs. 1 and 2. Squamous-cell Epithelioma of Thumb: Appearance of Lesion at Admission

Report of Case

Mrs. G. R., married, twenty-seven years old, American, white, presented herself at Bellevue Hospital on July 7, 1931, complaining of pain and an ulcerating mass on the right thumb. Her maternal grandfather had died of carcinoma of the stomach. Her past history revealed nothing of significance. The local condition had begun in January 1930, when the patient first became aware of a small growth on the medial side of the right thumb, near the distal phalanx. At that time she was in the third month of her fourth pregnancy, and her physician therefore postponed treating what he called a "wart" until gestation was completed. Shortly afterwards, the growth, which had attained a diameter of approximately \( \frac{1}{2} \) inch, became ulcerated and exuded a yellowish blood-tinged discharge. The growth persisted, and in March 1931, about one year after the onset of the condition, a biopsy was taken at a neighboring hospital; the growth proved to be a squamous-cell epithelioma. For relief of the excruciating shooting pains originating about the site of the lesion and radiating to the axilla and adjacent fingers, various ointments
and solutions were applied. No relief being forthcoming, the patient entered Bellevue Hospital with the deliberate request that the thumb be amputated. She was, however, persuaded to accept radium therapy.

Examination of the local condition at the time of admission (Figs. 1 and 2) revealed an ulcerated lesion on the anterolateral aspect of the right thumb, measuring 2.75 × 2 × 1 cm. The edges of the ulcer appeared raised, shiny, rolled, and everted; the base consisted of finely nodular, ragged, necrotic masses kept moistened with a seropurulent discharge.
The adjacent areas did not manifest any edema or erythema. On palpation, the growth was found to be fairly well fixed to the underlying bone and tender; it had the indurated consistency of the typical malignant ulcer. No nodes were felt in the epitrochlear or axillary regions. There were no other positive physical findings. The Wassermann reaction was negative.

A roentgen examination at the time of admission showed bone absorption involving the phalanges, and an infiltrating growth in the soft tissues of the terminal phalanx of the right thumb.

A biopsy was taken from the edge of the ulcer, and was reported by Dr. Douglas Symmers as squamous-cell epithelioma (Fig. 3).

Treatment with radium, 1920 mgm. hours, caused the growth to disappear (Fig. 4). Too short a time has elapsed, however, to permit any conclusions as to the permanency of the result.

**Summary**

Primary malignant tumors of the finger of idiopathic origin are rare. A case of epithelioma of the thumb, seemingly of spontaneous development, is reported.

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