CASE NOTES

A RODENT CYST*

BY

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HISTORY.—H.L.B., a healthy man aged 70, complained of a cyst in his left lower lid. He had refused to have it removed when it was first noticed 7 years ago. Since that time it had discharged "water" about every three or four weeks; but as it had become so large and had failed to discharge as usual he now felt something should be done.

The swelling was about the size of a large grape, and had the consistency of a thin-walled, fairly tense cyst (Fig. 1). It was situated between the skin and the tarsal plate, and reached the lid margin. The covering skin was smooth and freely moveable except for a small area at the apex which was covered by a thin scab firmly attached to the cyst wall. The base was not attached to the tarsus. It could be brightly transilluminated. No neighbouring glands were palpable.

FIG. 1.—Cyst, showing apical scab.

Consideration of these physical signs, the long history, and the repeated discharge of a watery character pointed to a diagnosis of a cyst—adenoma of a sweat gland (Clifton and Gordon, 1947). The complete absence of any firm tissue was felt to exclude the possibility of the presence of a rodent ulcer. At operation a well defined capsule was found, the cyst with its attached apical skin was easily dissected out.

Pathological Report.—The specimen is 15 mm. long and 7 mm. deep with a fairly smooth surface. Incision reveals a flattened cyst having a wall varying in thickness from 1 to 3 mm. (Fig. 2). No loculi or multiple cysts are visible macroscopically. The thickened wall is external, and has a covering of stratified squamous epithelium.

On magnification the cyst is seen to be very superficial with a thin scaly epidermis. The cyst wall is mainly composed of tumour tissue which in some places appears to arise from the peidermis. The cells of the growth are arranged in bundles of varying size, characteristic of a basal-celled carcinoma.

* Received for publication September 26, 1950.

FIG. 2.—Section of cyst ($\times 8\frac{2}{3}$), showing (a) stratified epithelial lining of thick oval area of wall, and epithelium in centre of this area.

FIG. 3.—Section of wall of cyst ($\times 69$).

The cells stain deeply and have little cytoplasm; the outer palisade layer is well marked, and the remainder are polygonal. There are no prickle cells or cell nests. The small groups of cells are solid with no sign of tubule formation. Some of the larger bundles have reticulated appearance. This is not a mixed rodent (Fig. 3).

FIG. 4.—Section of a true cystic rodent ulcer ($\times 25$). The cysts are almost equal in size to the tumour elements. Compare magnification with that of Fig. 2.

In the thickest part of the cyst wall there is a partial lining of epithelium (Fig. 2), and within the wall itself in this region is a mass of stratified squamous epithelium. This area shows signs of chronic inflammation with round-cell infiltration and fibrosis. There is a considerable quantity of pigment which gives an intense iron reaction and is undoubtedly derived from blood. Several islands of growth are present. There is a small collection of sweat tubules at the periphery of the deep aspect of the tumour.

This cyst is clearly a basal-celled carcinoma. For it to appear as a cyst of such a size is extremely rare (Percival and others, 1947) ; it might be due to mucoid degeneration, or it might arise from the enlargement of one cyst of a cystic rodent ulcer (Fig. 4). In the present case there is no sign of any mucoid degeneration, cyst formation, or tubular arrangement in the islands of growth. There is, however, a partial lining of squamous stratified epithelium. It is suggested that it is an example of a "rodent ulcer" arising in the wall of a keratin cyst. The cyst had ruptured and discharged its contents on several occasions thus washing out any keratin it may have contained. Willis (1948) suggests that carcinogenic substances can be secreted into keratin (sebaceous) cysts, which would explain the site and onset of some squamous and basal-celled carcinomata.

We wish to thank Mr. Eugène Wolff for his kind interest and help.

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