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Einfache Gewebeschädigungen
Simple injuries - Lésions banales

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**The Influence of the Adrenal Cortex on Tissue Reactions
to Simple Injuries¹**

By **B. L. Baker**

Current research on the relationship of the adrenal cortex to connective tissue encompasses at least three phases, namely, an elucidation of the action of adrenocortical steroids on connective tissue which is (a) normal, (b) subjected to mechanical or chemical trauma or (c) is a participant in various reactions involving a state of hypersensitivity. This presentation is concerned with the first two of these aspects. One desirable objective of our discussion might well be to discover why excessive amounts of adrenal hormones are damaging to normal or mechanically traumatized connective tissue while, on the other hand, ACTH and cortisone protect against allergic phenomena and cardiovascular lesions produced by anaphylactic hypersensitivity. This latter property of the adrenal secretions has been demonstrated convincingly by *Rich* (6, 21), *Soffer* (24) and *Germuth* (12) and their colleagues.

The original observations to be presented will deal almost entirely with the local action of adrenocortical hormones on connective tissue. It has been known for some time that certain steroid hormones, when applied to the skin in an appropriate vehicle, are absorbed readily into the circulation. Thus, *Calvery*, *Draize* and *Laug* (7), in a review of the literature published prior to 1946, concluded that when estrogens and androgens are dissolved in volatile organic solvents and placed on the skin, they are systemically as effective as when injected subcutaneously. In contrast, with adrenocortical hormones one can induce *histological effects at the site of percutaneous application without modifying the microscopic structure of other parts of the body* (3). This type of effect is illustrat-

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