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AN IMMUNOHISTOCHEMICAL STUDY ON  
ATPase-POSITIVE CELLS IN THE CHICKEN EPIDERMIS

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ATPase-positive cells in the chicken epidermis, which are considered to be the immunocompetent cells of the skin, were studied by enzymohistochemistry, immunohistochemistry and ultrastructural techniques.

ATPase<sup>+</sup> cells in the epidermal sheets had a dendritic shape resembling that of Langerhans cells in mammalian epidermis. In electron microscopical enzymohistochemistry, these cells exhibited round or oval nuclei and clear cytoplasm containing no Birbeck granules.

Ia-, CD3- and CD8-positive cells were also observed in the chicken epidermis. Double staining using both immunohistochemistry and ATPase-histochemistry showed that all of them, except for some of CD3<sup>+</sup> cells, expressed ATPase activity.

These results revealed that ATPase-positive cells in the chicken epidermis consisted of two cell populations, Ia<sup>+</sup> Langerhans-like cells and CD8<sup>+</sup> T lymphocytes.