LETTER TO THE EDITOR

No Differences in Filipin-cholesterol Complexes between Normal and Ichthyotic Epidermis

An increased level of cholesterol-sulphate in the epidermis and a deficiency of steroid-sulphatase are characteristic of x-linked ichthyosis. Filipin, a polyene antibiotic, interacts specifically with cholesterol in the epidermal membrane. A comparative study, using the freeze-fracture electron microscopy technique (1), was made of the epidermal filipin-cholesterol complexes from three cases with x-linked ichthyosis diagnosed by measuring the steroid-sulphatase activity of the lymphocytes (2), two with lamellar ichthyosis, and two normal controls. Epidermal filipin-cholesterol complexes were clearly observed with this technique. These epidermal tissue, did not show any prominent differences in their filipin-cholesterol complexes in terms of the numbers and distribution patterns on either the cytomembranes or the plasma membranes.

REFERENCES

- Fujita H, Ishimura K, Matsuda H, Ban T. Freeze-fracture images of distribution of filipincholesterol complexes in secretory cells of the anterior pituitary and adrenal medulla of mice. Acta Histochem Cytochem 1982; 15: 284-293.
- Okano M, Kitano Y, Nakamura T, Matsuzawa Y. Detection of heterozygotes of x-linked ichthyosis by measuring steroid sulphatase activity of lymphocytes. Mode of inheritance in three families. Br J Dermatol 1985; 113: 645–649.

Received November 12, 1987

Masaki Okano, Yukio Kitano, Kunihiko Yoshikawa, Kazunori Ishimura and Hisao Fujita.

¹Department of Dermatology and ²Department of Anatomy, Osaka University, Osaka 553, Japan.

Reprint requests to Masaki Okano, M.D., Department of Dermatology, Habikino Hospital of Osaka Prefecture, 7-1, Habikino-3, Habikino, Osaka 583, Japan.