

LETTER TO THE EDITOR

Malignant Acanthosis Nigricans— A Para-endocrine Syndrome?

In their article entitled "Malignant Acanthosis Nigricans—A Para-endocrine Syndrome?" in the ACTA-DV (vol. 57: page 169, 1977) Drs Esther and Jens Hage, suggest that gastric carcinoma cells or other tumors which are derivatives of the APUD series of endocrine cells might produce a substance which causes acanthosis nigricans. I find their hypothesis of interest, particularly because of an observation made by Dr Aaron Lerner and myself published in a letter to the editor of the New England Journal (vol. 293: page 200, 1975). A young obese woman received injections intramuscularly of melanocyte stimulating hormone (MSH) and L.dopa by mouth as treatment for her tumor. While receiving the MSH over a two month period of time, the patient developed classical changes of acanthosis nigricans on the neck, axilla, and hands. The treatment was discontinued. The MSH, a crude extract of bovine pituitaries, was purified by column chromatography which removed large amounts of small peptides which contaminated the original preparation. During the many months it took to purify the MSH, the patient's acanthosis nigricans

spontaneously disappeared. Upon the completion of the purification process, the patient was again treated with MSH and L. dopa but the acanthosis nigricans did not reappear.

The observation is incomplete to document absolutely that the acanthosis nigricans was induced by a small peptide which contaminated the extract of the MSH prepared from the bovine pituitaries. However, the observation is highly suggestive of this conclusion. Many other patients have received the same preparation of MSH intramuscularly without developing acanthosis nigricans. However, this patient was obese and probably more susceptible to expressing this cutaneous abnormality than other thin patients.

Our observation is consistent with the hypothesis proposed by Drs Esther and Jens Hage.

James J. Nordlund, M.D.
Department of Dermatology
School of Medicine
Yale University
New Haven, Connecticut 06510
USA

Received May 14, 1977