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LETTERS TO THE EDITOR

Cutaneous Paraneoplastic Syndromes and Genodermatoses with Malignant Potential

Sir,

The review article by Politi et al. (1) on mucosal and skin conditions that may be associated with cancer summarizes the salient features of several of the cutaneous paraneoplastic syndromes. The authors also discuss some of the genodermatoses with malignant potential: keratosis palmaris et plantaris (Howel-Evans syndrome or tylosis), Cowden's disease, nevoid basal cell carcinoma syndrome, Gardner's syndrome, mucosal neuroma syndrome and Peutz-Jeghers syndrome. The importance of differentiating these two groups of mucocutaneous disorders is more than merely semantics.

Cutaneous paraneoplastic syndromes are a group of conditions in which the mucosal or skin lesions may precede, occur concurrent with, or follow the diagnosis of an associated malignancy; hence, they may be the initial manifestation of an unsuspected neoplasm in a previously cancer-free individual or herald the recurrence of malignancy in an oncology patient. Individuals with these disorders are not genetically predisposed to develop neoplasms and the cancer-related appearance of these syndromes does not occur in other family members. Although the pathogenesis for many of these syndromes remains to be determined, the release or the induction of cytokines by the rumor has been postulated to have an etiologic role in these conditions (2, 3).

Genodermatoses with malignant potential are inherited disorders with dermatologic manifestations in which disease-associated malignancies may subsequently develop. An individual in whom one of these conditions is diagnosed requires an initial evaluation and periodic follow-up examinations for cancer. Also, since these disorders are familial, screening of the patient's family for the genodermatosis and genetic counseling should be performed (4, 5).

In conclusion, disease-associated internal malignancies occur in both patients with cutaneous paraneoplastic syndromes and genodermatoses with malignant potential. Whereas individuals with either of these conditions should receive an appropriate work-up for cancer, evaluation of the family members is only necessary for those patients who have a genodermatosis with malignant potential. Therefore, differentiating these two groups of cancer-related conditions is essential.

REFERENCES

1. Politi Y, Ophir J, Brenner S. Cutaneous paraneoplastic syndromes. Acta Derm Venereol (Stockh) 1993; 73: 161–170.
2. Cohen PR, Kurzrock R, eds. Cutaneous paraneoplastic syndromes. Clin Dermatol 1993; 11: 1–187.
3. Cohen PR. Cutaneous paraneoplastic syndromes. Am Fam Physician, in press.
4. Cohen PR. Genodermatoses with malignant potential. Am Fam Physician 1992; 46: 1479–1486.
5. Cohen PR, Kurzrock R, eds. Genodermatoses with malignant potential. Dermatol Clin, in press.

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In response to the Letter by Cohen

We appreciate the comments of Dr. Cohen in regard to our review article "Cutaneous Paraneoplastic Syndromes" (1).

Concerning the differentiation between cutaneous paraneoplastic syndromes and cancer-associated genodermatoses, we would like to emphasize the following:

Paraneoplastic syndromes are defined as cancer-associated phenomena. This means that although they are not a direct constituent of the malignancy or metastases, they appear associated with cancer in a frequency that makes their presence significant. Hence, cancer-associated genodermatoses, even if they are to be treated as a special group both clinically and theoretically, still meet the criteria of paraneoplastic syndromes.

In practice, the finding of a cutaneous paraneoplastic marker and the diagnosis of such genodermatoses herald the possible association of an underlying neoplasia, even if specific clinical steps should be taken, e.g. genetic counseling and family screening.

Unfortunately, the classification of paraneoplastic conditions still poses significant problems, especially since many of these conditions also appear without any underlying malignancy or are not specific enough and therefore associated with a wide range of cancer types.

Furthermore, the pathogenesis of many of these syndromes is still obscure, although several mechanisms have been proposed for explaining these syndromes. These include the activity of various cytokines, oncogenes, hormones, the association of bacterial superantigens that may directly bind with the major histocompatibility complex (MHC) receptors and tumor-induced depletion of specific substances (1).

Finally, recent studies point to an inherited susceptibility to

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some cancer types, associated with the inheritance of a gene conferring high risk for cancer.

For example, 5–10% of breast cancer (2, 3) and ovarian cancer (4) cases can now be attributed to such a pattern of inheritance.

Hence, it is likely that such genetic links will be found in the future in some patients with cutaneous paraneoplastic syndromes, which at present are not yet genetically determined. We conclude that cancer-associated genodermatoses are to be classified as paraneoplastic syndromes. Furthermore, this group should be defined as a subclass of cutaneous paraneoplastic syndromes, which indeed it is.

REFERENCES

1. Politi Y, Ophir J, Brenner S. Cutaneous paraneoplastic syndromes. Acta Derm Venereol (Stockh) 1993; 73: 161–170.
2. Newman B, Austin MA, Lee M, King MC. Inheritance of human breast cancer. Evidence for autosomal dominant transmission in high-risk families. Proc Natl Acad Sci U.S.A. 1988; 85: 3044–3048.
3. Claus EB, Risch N, Thompson WD. Genetic analysis of breast cancer in the cancer and steroid hormone study. Am J Hum Genet 1991; 48: 232–242.
4. Schildkraut JM, Thompson WD. Familial ovarian cancer. A population-based case-control study. Am J Epidemiol 1988; 128: 456–466.

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