The “missing link” in the chain of discovery of early melanoma of the skin

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A 34-year-old male internist working at a large teaching hospital died of metastatic melanoma 3 years after a silent primary tumor was discovered by his wife. The patient's wife, a pediatric resident, noted the lesion on his back after attending a lecture on melanoma and premelanoma. The patient had been seen annually by his primary care physician, and during these encounters the primary melanoma was present on his back but was overlooked. In addition, he had 4 of the 6 MMRISK factors: 1) inability to tan, 2) severe sunburns in youth, 3) family history of cutaneous melanoma, and 4) the presence of 6 dysplastic nevi (*Table*). The primary care physician was not alert to the fact that the patient had a high risk of melanoma. If the primary tumor had been identified early and excised, the patient's probability of 5-year survival would have been >90%.

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The “missing link” is the failure of the primary physician to discover melanoma early in a curable stage by inspecting the skin during the initial encounter. *Inspection and assessment of all moles and pigmented lesions is an essential part of every physical examination.* The detection of early melanoma is in the hands and eyes of the primary care physicians (generalists, gynecologists, internists). Early melanoma is missed because most physicians do not examine the skin adequately. Inspection of the skin in white patients at the time of the first visit is a necessary part of good patient care, just as is taking the blood pressure. Even if the physician cannot make the diagnosis, he or she should look for large (>1.0 cm) dark-brown lesions with the 2 cardinal signs of atypicality: *irregular borders* and *variegation of color*. The patient can then be referred to a dermatologist for dermatoscopy (epiluminescence microscopy) and/or surgical excision of the lesion for biopsy.

Table. MMRISK: a mnemonic for melanoma

M	Moles: >3 atypical (dysplastic) moles, which are precursor lesions
M	Moles: multiple moles
R	Red hair and/or freckling
I	Inability to tan: skin phototypes I and II
S	Sunburn history: severe sunburn before age 14
K	Kindred: family history of melanoma

Having each white patient complete a simple, user-friendly checklist of the MMRISK factors of cutaneous melanoma on the initial information form is enormously helpful in judging who is at high risk for acquiring melanoma and how frequently they should have a skin scan by their physician or a dermatologist. Having this at hand and seeing melanoma risk factors alerts the primary physician or nurse to inspect the total skin surface for suspicious pigmented lesions. When individuals with black skin acquire primary cutaneous melanoma, the palms, soles, mucous membranes, and nailfolds are sites of predilection.

Too many people are dying of melanoma principally because most physicians are not “on the alert” for pigmented lesions in the physical examination and overlook early cutaneous melanomas, especially on the backs of men and women or on the legs of women. This failure to examine the total skin in persons at high risk for melanoma constitutes a serious deviation of the standard of care.

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