Comparing total body examination vs. lesion-directed skin cancer screenings

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Total-body examination found a higher absolute number of skin cancers but lesion-directed screening performed by a dermatologist appeared to be an acceptable alternative screening method in a Belgian study, according to an article published online by *JAMA Dermatology*.

The incidence of melanoma and nonmelanoma skin cancer (NMSC) has been on the rise worldwide. Early detection is believed to result in better cure rates and subsequently more cost-effective treatment.

Lieve Brochez, M.D., Ph.D., of University Hospital Ghent, Belgium, and coauthors compared dermatologist-conducted lesion-directed screening (LDS) with standard total-body examination (TBE) in two communities in Belgium. Those individuals invited for LDS had a lesion that met one or more of the listed criteria: the ABCD rule (A, asymmetry; B, borders; C, colors; and D, differential structures), ugly duckling sign (looks different from a patient's other moles); a new lesion lasting longer than four weeks; or red nonhealing lesions.

The participation rate was 17.9 percent (1,668 of 9,325) in the TBE group compared with 3.3 percent (314 of 9,484) in the LDS group. In total, 1,982 people were screened and 47 skin cancers (2.4 percent) were confirmed, including nine melanomas, 37 basal cell carcinomas and one squamous cell carcinoma or Bowen disease.

The skin cancer detection rate per 100 participants did not differ between the two groups with a 2.3 percent rate (39 of 1,668) in the TBE
group and 3.2 percent (8 of 248) in the LDS group, according to the results. In the group invited for TBE, more skin cancers were detected given the higher participation rate of 0.4 percent (39 of 9,325) for TBE compared with 0.1 percent (8 of 9,484) for LDS.

Conducting a TBE took on average just less than four minutes (232 seconds) and a LDS examination was about 41 seconds, which the authors note makes the LDS 5.6 times less time consuming than TBE.

"When performed by dermatologists, LDS is an acceptable alternative screening method, especially in health care systems with limited budgets or long waiting lists. The effectiveness of skin cancer screening by nondermatologists warrants further study," the study concludes.

In a related editorial, June K. Robinson, M.D., *JAMA Dermatology* editor and of the Northwestern University Feinberg School of Medicine, Chicago, and Allan C. Halpern, M.D., of Memorial Sloan Kettering Cancer Center, New York, write: "A major logistic barrier for melanoma screening is access to expert skin cancer diagnosis. The Belgian study points to an intriguing strategy for achieving screening efficiency by moving the screening process outside usual office-based practice. In the Belgian study, the examiners were dermatologists, but the economics and size of the dermatology workforce make this an impractical approach in the United States."

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