Review does not support monthly lab testing for oral isotretinoin use for acne

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A review of medical literature does not support monthly laboratory testing for all patients who are using standard doses of the acne medication isotretinoin, according to an article published online by *JAMA Dermatology*.

Isotretinoin has been associated with several adverse effects, including teratogenicity (causing birth defects) and hyperlipidemia. Prior studies have looked at the usefulness of laboratory monitoring during isotretinoin therapy.

Joslyn S. Kirby, M.D., M.Ed., M.S., of the Penn State Milton S. Hershey Medical Center, Hershey, Penn., and coauthors reviewed medical literature to estimate changes in laboratory tests during isotretinoin therapy.

The authors included 26 studies (1,574 patients) in their meta-analysis, which evaluated laboratory test results for lipid levels, hepatic (liver) function and complete blood cell counts.

Results suggest that while isotretinoin was associated with a change in the average value of some laboratory tests (white blood cell count and hepatic and lipid panels), the average change across a patient group did not meet the criteria for high-risk and the proportion of patients with laboratory abnormalities was low, the authors report.

However, the authors note their study should be considered in the context of some limitations, which include that the analysis was limited by the availability of data and the completeness of reports. Authors also did not have access to information about patients or the treatment so specific laboratory changes could not be correlated with doses or dose changes.

"The findings of this study suggest that less frequent laboratory monitoring may be safe, with few missed high-risk laboratory changes, for many patents with acne who are receiving typical doses of isotretinoin. ... A decrease in the frequency of laboratory monitoring for some patients could help to decrease health care spending and potential anxiety-provoking blood sampling," the study concludes.

"More than 7,000 personal injury lawsuits associated with isotretinoin have been filed, and hundreds are still pending. Although many of these associations have not been well substantiated by scientific evidence, the heightened perception of possible drug-related adverse effects is suggested by the unusually high number of legal proceedings related to this particular drug. In the face of these controversies, changing our practice of laboratory test monitoring relies not only on evidence provided by key studies such as this one but may additionally require discussion within the dermatology community and possibly even endorsement or guidelines issued from key opinion leaders to gain wide acceptance," write Eleni Linos, M.D., M.P.H., Dr.PH., of the University of California, San Francisco, and coauthors in a related editorial.

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