

Correspondence

To the Editors

Serum creatine kinase levels in acne vulgaris patients

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Dear Editors,

Acne vulgaris is a common dermatological problem among children and teenagers. This sometimes required medical therapy and isotretinoin is a widely used drug. Elevated serum creatine kinase (CK) levels in acne vulgaris patients treated with isotretinoin is a possible clinical phenomenon. Sayar SK concluded that “*Although mild elevation of serum CK has a benign course and is not uncommon...¹*.” Clinically, a marked hyperCKemia with or without muscle-related complaints is observed in patients receiving isotretinoin^{2,3}. There are a considerable number of patients with elevated CK levels in those series and several patients with marked levels. Sayar SK, Kaymak Y, and Landau M, *et al* did not claim a necessity for regular testing (a routine work-up) of CK. Indeed, a routine work-up for CK or discontinuation of the treatment among all patients with CK elevations should be discussed.

To use CK level as a laboratory monitoring tool is interesting. There are additional considerations in laboratory medicine for using CK. This enzyme CK is a very sensitive marker affected by pre-analytical factors. The blood collection technique and transportation of specimen can result in aberration of the CK result. A blood collection by butterfly needles and transportation by pneumatic tube system can result in a higher CK value⁴. Also, macro CK is another important phenomenon that might cause false elevation of the serum CK level⁵. These important laboratory issues should be recognized when a practitioner interprets the serum CK result. Repeating CK elevations in some patients may eliminate the laboratory mistakes during the testing process. Additionally, the levels of other markers such as AST in the same testing being within normal limits can help to emphasize the reliable test results.

It is concluded that ‘not all increased CK elevations reflect a rhabdomyolysis’; however an increasing over upper limit for CK elevations among acne patients on drug therapy with isotretinoin requires attention. The importance of evaluating the elevation with patients' anamnesis and clinic should be emphasized.

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