

Rhabdomyolysis induced by Isotretinoin

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Rhabdomyolysis is caused by necrosis of striated muscle cells and it has been defined as an elevation of creatine phosphokinase (CK) greater than 5 times the upper limit of normal. The rhabdomyolysis can be caused by trauma, overexertion, toxins (alcohol, drugs) or muscle metabolic defects. Drugs are common causes of rhabdomyolysis, usually statins and antipsychotics. We present a case of rhabdomyolysis during isotretinoin therapy [1].

A 18-year-old male started therapy with 40 mg per day of isotretinoin (0.5 mg/kg/day) for acne. In a routine examination conducted after 6 months the patient reported moderate fatigue. Blood tests revealed elevated CK with values of 39.800 IU/l (normal range, 24-204 UI/l). We recommended discontinue the isotretinoin therapy, avoidance of strenuous exercise and abundant fluid intake. After four weeks CK had returned to normal (56 UI/l).

Oral isotretinoin (13-cis retinoic acid) is a vitamin A derived that it is effective for the treatment of severe recalcitrant nodular acne. This drug counteracts the pathogenic factors that contribute to the development of acne vulgaris. Treatment is initiated at a dose of 0.5 mg/kg/day and it is subsequently increased to 1 mg/kg/day. Isotretinoin is associated with a number of adverse effects: causes spontaneous abortions and severe life-threatening congenital malformations, inflammatory bowel disease, dry skin and mucous membranes, epistaxis, cheilitis, desquamation, photosensitivity,

pruritus, hypertriglyceridemia and myalgias [2]. Rhabdomyolysis may occur in patients taking oral isotretinoin, particularly those who engage in vigorous physical activity as our patient [3]. CK levels are elevated in approximately 15-50 percent of patients with isotretinoin-induced myalgias [4]. The elevation of CK is usually mild. In some patients is asymptomatic (with elevated CK in laboratory tests), in others they had severe muscle pain and weakness.

The management of isolated CK elevation is temporarily discontinuing isotretinoin (until CK levels return to normal) of decrease the dose. In these patients it is recommended to avoid strenuous exercise, it is believed that both can have a synergistic effect [4].

References

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