

Effect of Yoga and Ayurveda on Duchenne Muscular Dystrophy

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Sir,

Duchenne muscular dystrophy (DMD) is an inherited X chromosome–linked recessive myopathy for which no cure exists.[1] At best, medical and rehabilitative approaches for genetic defects can be used to maintain the patient's function and comfort.[2] Until now corticosteroids are the only pharmacological palliative treatment available for DMD, but these drugs are associated with many side effects.[3] There is need for an alternative therapy, without any side effects, that can control progression of this disease.

We studied the effect of 18 months of yoga practice and ayurvedic drugs on 16 patients with DMD. All patients were attending the outpatient department in a hospital in northern India. The age of the patients ranged from 4 to 23 years (mean: 11.2±5.3 years). Diagnosis was based on muscle biopsy. As can be expected, the serum creatine phosphokinase (CPK) value was high in all these patients.[4] Yoga interventions were based on the traditional text, *Patanjali's Yoga Sutras*, compiled circa 900 BC.[5] Ayurvedic medications were in the form of poly-herbal tablets and liquid decoctions. Patients learned yoga for a week and were then followed up at home by telephone for 18 months. Mobility, self-care, and level of comfort were assessed based on responses to relevant questions. Out of the 16 patients only 10 completed 18 months of follow-up. Of these ten patients, three patients practiced yoga regularly for 18 months, five patients were irregular in their practice, and two patients stopped the practice before completing 18 months. At the end of 18 months a positive outcome in mobility, self-care, and respiratory ease was noted in the three patients who were regular with yoga and ayurveda. Out of the five patients who were irregular with yoga and ayurveda, three took some other alternative treatment and two reverted to corticosteroid treatment. The two patients who took steroids had marked increase in weight, which caused difficulty in balancing. The main side effect of corticosteroids in patients with DMD is obesity.[6] In the three patients who took other alternative therapies but were irregular with yoga and ayurveda, the self-care and mobility deteriorated while respiratory ease remained unaltered. One DMD patient out of the two who stopped therapy died during the study. This patient had respiratory problems and was bedridden due to a fracture of the lower lumbar spine. Respiratory disease in DMD is a major cause of mortality.[7]

Thus, after 18-months of follow-up we found improvement in four out of ten patients who were regular with the yoga and ayurveda regimen, which suggests that there are some benefits to be had from these practices. Definite conclusions would be possible with a larger number of subjects but the need for long-term follow-up makes such a study difficult to organize.

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