

Yoga is helpful in treating systolic hypertension in elderly

Sir,

There was an article titled "Comparison of the effects of yoga and lifestyle modification on grade-I hypertension in elderly males: A preliminary study" published in the *International Journal of Clinical and Experimental Physiology*.

Even though many comparative studies have reported the health benefits of yoga and exercises, this randomized control study done in elderly people with grade-I hypertension is appreciable as the participants in study group have isolated systolic hypertension alone (grade-I) with normal diastolic blood pressure.^[1] Essential hypertension, especially systolic hypertension is an independent risk factor for cardiovascular morbidity and mortality in elderly people, which is managed preferably by non-pharmacological methods like lifestyle modification.

It is reported with significant reduction in heart rate, mean arterial pressure and systolic blood pressure without any significant change in diastolic blood pressure in yoga group compared with LSM (lifestyle modification) group. This will prevent the cardiovascular morbidity (J-curve response) associated with the usage of antihypertensive drugs in grade II or grade III hypertensive patients.^[2]

Moreover, in comparison to exercise, yoga (asana and pranayama techniques) will be easy to practice in old age and chances of injury will be less and age related restriction, may not interfere in practicing the same.

In this study, stretching practices and brisk walk were followed in LSM group. However, there are no details about the salt intake, alcohol consumption, smoking habit and consumption of vegetables, fruits and low-fat dairy products. Modification in the above said measures are also recommended by European Society of Hypertension (ESH) and European Society of Cardiology (ESC) for the management of arterial hypertension.

Less sample size and exclusion of females have been mentioned as limitations in this study. It is also noted that there was more (though not statistically significant) serum total cholesterol and triglycerides in LSM group compared with yoga group. The lipid profile at the end of the study has not been reported. The lipid profile does influence the arterial stiffness.^[3] Constant high lipid profile may be the factor which prevents the reduction in systolic blood pressure in the LSM group. It will be more interesting and informative, if such studies also report the changes in autonomic function as yoga plays a key role in regulating heart rate and blood pressure.

Karthik Shanmugavel

Department of Physiology, Jawaharlal Institute of Post-graduate, Medical Education and Research, Puducherry, India

Address for correspondence:

Dr. Karthik Shanmugavel,
Department of Physiology, Jawaharlal Institute of
Post-graduate Medical Education and Research,
Puducherry - 605 006, India.
E-mail: drskarthik@yahoo.co.in

REFERENCES

1. Patil SG, Dhanakshirur G, Aithala MR, Das KK. Comparison of the effects of yoga and lifestyle modification on grade-I hypertension in elderly males: A preliminary study. *Int J Clin Exp Physiol* 2014;1:68-72.
2. Mancia G, Fagard R, Narkiewicz K, Redoxn J, Zanchetti A, Bořim M, *et al.* The task force for the management of arterial hypertension of the European Society of Hypertension, The task force for the management of arterial hypertension of the European Society of Cardiology. 2013 Guidelines for the management of arterial hypertension: The Task Force for the Management of Arterial Hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). *J Hypertens* 2013;31:1281-357.
3. Wilkinson I, Cockcroft JR. Cholesterol, lipids and arterial stiffness. *Adv Cardiol* 2007;44:261-77.

| Access this article online | |
|--|----------------------------------|
| Quick Response Code: | Website: www.ijcep.org |
|  | DOI: 10.4103/2348-8093.137425 |

Received: 7th June, 2014; Revised: 20th June, 2014; Accepted: 25th June, 2014