

Effect of meditation on lipid profile

G Rekha¹, B Rajini^{2*}

¹Assistant Professor, Department of Physiology, Osmania Medical College, Hyderabad, Telangana, INDIA.

²Assistant Professor, Department of Physiology, Kakatiya Medical College, Warangal, Telangana, INDIA.

Email: drgudarekha@gmail.com, drrajininagesh@gmail.com

Abstract

In this study, Lipid Profile of those practicing Raja Yoga, Meditation (short term and long term meditators) were compared with those of non-meditators. Cholesterol level, Triglycerides and High Density Lipoprotein levels were significantly normal in short term and long term meditators when compared with non-meditators. Moreover long term meditators had significantly lower cholesterol than short term meditators. This shows that long term meditators benefit more, that duration of meditation definitely has a significant proportionate role.

Key Words:

*Address for Correspondence:

Dr. B Rajini, Assistant Professor, Department of Physiology, Kakatiya Medical College, Warangal, Telangana, INDIA.

Email: drrajininagesh@gmail.com

Received Date: 12/06/2017 Revised Date: 28/07/2017 Accepted Date: 20/08/2017

DOI: <https://doi.org/10.26611/103335>

Access this article online

Quick Response Code:



Website:

www.medpulse.in

Accessed Date:
26 September 2017

INTRODUCTION

Yoga has become a universal language of spiritual exercise in the United States, crossing many lines of religion and cultures. Every day, millions of people practice yoga to improve their health and overall well-being meditation. Yoga is an ancient practical science. It has proved to be beneficial in promoting total health in the present stressful life. The present study is aimed at determining the effect of Raja Yoga, Meditation on Lipid Profile. The study was performed on subjects who did not differ significantly in age, sex distribution and physical activity.

MATERIALS AND METHODS

The present study was conducted in the Department of Physiology, Osmania Medical College, Hyderabad. The study was undertaken to analyze the effect of Anapanasati Meditation on Lipid Profile among short term and long term meditators and to compare with that of non-meditators.

Inclusion Criteria

- Healthy males and females in the age group of 40-45 years.
- Short term meditators were those who had been practicing meditation from 6 months to 5 years.
- Long term meditators were those who had been practicing meditation for more than 5 years.
- Age and sex matched healthy individuals not exposes to any meditation or relaxation techniques were included as controls.

Exclusion Criteria

- Age below 40 years and above 45 years.
- Presence of obesity, hypertension, DM Ischemic Heart Disease.

Present study was conducted on 75 healthy subjects of either sex in the age group of 40-45 years. This group was divided into 25 short term meditators, 25 long term meditators and 25 non-meditators. They practice meditation regularly for 1 hr/day 6-7 AM.

RESULTS

Table 1: Comparison of Lipid Profile in Non-Meditators and Short term and Long term meditators

Variables	Non-Meditators	Short Term Meditators	Long Term Meditators	p Value
Cholesterol (mg/dl) Mean±SD	353.16±21.4	218.5±21.2	148.88±10.1	0.0001
Triglycerides (mg/dl)	148	134	98	0.0001
Median (min, max)	(135, 280)	(128, 150)	(90,110)	
HDL (mg/dl)	49	43	48	0.0002
Median (min, max)	(40, 64)	(13, 52)	(41, 56)	

The results were expressed as Mean ± standard deviation for continuous data and number and percentage for discrete data. One way ANOVA was used for simultaneous multiple group comparison followed by post-hoc Tukey's test for group-wise comparisons categorical data was analysed by chi-square test. SPSS version 16 software was used for all the analysis.

1. p value > 0.05 is taken as 'not significant'.
2. p value < 0.05 is taken as 'significant'.
3. p value < 0.001 is taken as 'highly significant'.

DISCUSSION

Results of this study found significant improvement in lipid profile parameters. The improvement in the lipid profile parameters after yoga could be due to increased hepatic lipase and lipoprotein lipase at cellular level which affects the metabolism of lipoprotein and thus increase uptake of triglycerides by adipose tissue. The values of lipid profile in this study was comparable with studies of other researchers. Vyas and Dikshit¹ compared with lipid profile of short term (6months - 5years) and long term (>5 years). Raja Yoga meditators compared with non-meditators are found to have a significant reduction in serum cholesterol of both the group than non-meditators. Almost any type of stress causes an immediate and marked increase in ACTH Secretion by the anterior pituitary gland, followed within minutes by greatly increased adrenocortical secretion of cortisol.

Cortisol promotes mobilization of fatty acids from adipose tissue. The mechanism by which cortisol promotes fatty acid mobilization, may be due to diminished transport of glucose into fat cells. Meditation via its action on the hypothalamus decreases the stress which causes a decrease in the secretion of corticotrophin releasing factors, ACTH and cortisol.

CONCLUSION

There have been worldwide interests developed in the field of Yoga and discovering the meeting grounds on point of mutual interest so that medicine and yoga can be together and achieve optimum function of body and mind. The lipid profile show significant improvement and reduce the risk of health hazards associated with increased cholesterol. It can be thus concluded that these results and their explanations would justify the incorporation of yoga as part of our life style in prevention of age related complications.

REFERENCES

1. Vyas R. Dikshit N. Effect of Meditation on respiratory system, Cardiovascular System and Lipid Profile. Indian Journal of Physiol and Pharmacol 2002; 46: 487-91.
2. Talukdar B.V., Jain S.C and Majumdar, M (1996). Effect of Yoga Training on plasma lipid profile, R.B.C. Membrane Lipid Peroxidation and Na⁺K⁺ ATPase activity in patients of essential hypertension. Indian Journal of Clinical Biochemistry, 11(2), 129-133.

Source of Support: None Declared
Conflict of Interest: None Declared