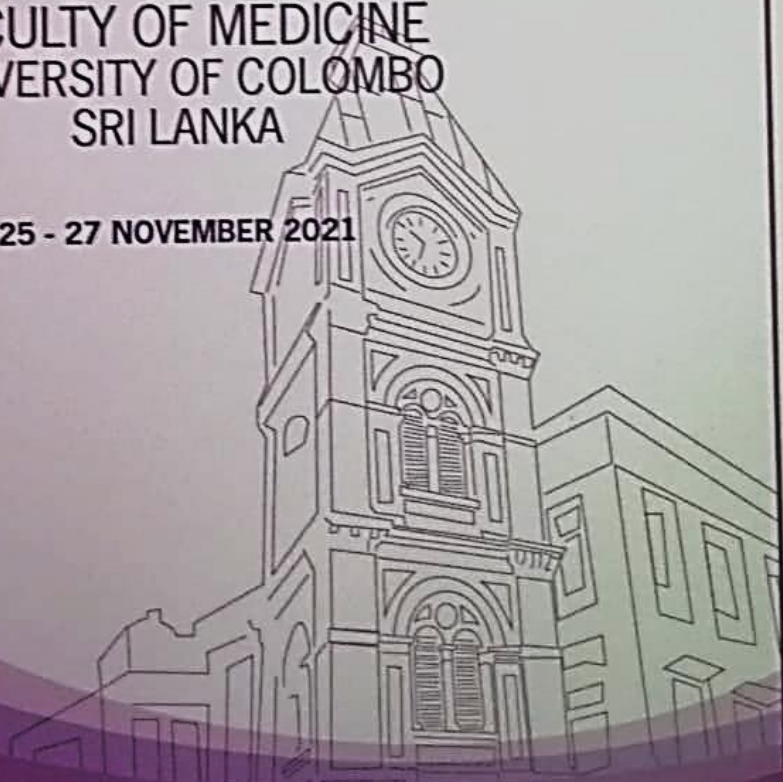


"NCD AND COVID 19: TACKLING TWO PANDEMICS THROUGH COLLABORATIVE RESEARCH"

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pp- 04: Cardiorespiratory and cardiovascular autonomic function in healthy long-term meditators: a study protocol

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Introduction: Long-term meditation (LTM) is associated with physiological benefits. No study to date has evaluated cardiorespiratory and autonomic function in Sri Lankan long-term meditators (LTMs). This study aims to describe and compare resting cardiorespiratory parameters, oxygen consumption during submaximal exercise testing and selected autonomic function parameters in healthy LTMs and non-meditators.

Methods: This cross-sectional, comparative study will include healthy Sri Lankan adults of either sex, aged between 18-65 years. Individuals who are unhealthy, pregnant or breast feeding, engaged in athletics and extensive sports, current smokers and who have smoked during last 12 months will be excluded. Thirty LTMs practicing Buddhist meditation consistently >3 years selected through an interviewer-administrated intake interview questionnaire (validated screening tool) and 30 age-sex matched non-meditators will be recruited. Educational level, dietary habits and other confounding factors along with physical activity level (International Physical Activity Questionnaire -long form) will be recorded. Participants need to abstain from vigorous exercise, caffeine consumption and have a light meal 2 hours prior to testing. Resting cardiorespiratory measurements (heart rate, blood pressure, ECG, respiratory rate, oxygen saturation) and spirometry parameters (FEV₁/FVC, FVC, PEFR, FEF25, 50, 75) will be recorded using a Fitmate-Med PRO cardiopulmonary assessor. Oxygen consumption will be estimated using 6MWT. Cardiovascular autonomic functions will be assessed by heart rate response to deep breathing, orthostatic test, Valsalva maneuver, blood pressure response to standing and isometric hand grip test using power lab (AD Instruments P Ltd, Australia). Data will be checked for normality and an appropriate significance test of comparison will be used for analysis.

Discussion: This study with an adequate sample size falling within the range of sample sizes of published studies and standardized battery of tests to access selected physiological changes in LTMs compared to matched controls will provide evidence for future research and clinical use.

Key words: Long-term meditation, Autonomic function tests, Cardiorespiratory, Spirometry, Oxygen consumption