DIABETES PREVENTION THROUGH YOGA BASED LIFESTYLE A PAN INDIA RANDOMIZED CONTROLLED TRIAL

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Objective To look at the effect of yoga based lifestyle program on risk reduction and regression to normoglycemia in prediabetes .

Research Design and Methods

A sample of 4450 individuals, the prediabetes (A1c 5.30 to 6.49%) subset of a community based pan India translational trail (NMB-2017) were randomized into intervention (2316 in 40clusters) and control (2134 in 40 clusters) arms. Camp based (2hrs/day, 9 consecutive days, followed by video guided daily home practice and weekly supervised 2hr classes for 3 months) intervention included a validated yoga-based lifestyle modification (YLS). The waitlist control group received camp based(one day) standard of care with medication monitoring and advice on diet and physical activity . The primary and secondary outcomes were: conversion from prediabetes to diabetes and regression to normoglycemia.

Results

Conversion from prediabetes to diabetes was 11.2% and 32.01 % in YLS and control groups respetively with a difference(Absolute risk reduction) of 20.81% and relative risk reduction (RRR) of 68.64% (95% CI of 64.73-73.48).The odd's ratio [$_{adj}$OR=1.26 (95% CI 1.05-1.50)] for regression to normoglycemia was 1.26 ($p<0.001$); 52.80% and 37.8% in YLS and control arms respectively. There was significantly better risk reduction and regression in the younger adults (<40 years) than their older counterparts.

Conclusion

Yoga based life style module is effective in primary prevention and regression to normoglycemia in high risk Indian prediabetes cohort. The limitation was the lack of long term follow-up.