
Title : Indicators of Mild Cognitive Impairment among Hypertensive Adults (40-60 years)**Author(s) :** Neha Vaidya, Subhadra Mandalika**Institution :** Department of Foods, Nutrition and Dietetics, College of Home Science, Nirmala Niketan, 49, New Marine Lines, Mumbai- 400 020, Maharashtra, India.**Keywords :** *Cognition, Hypertension, Body Composition.*

Introduction:

Hypertension may cause silent brain infarction, brain atrophy, endothelial and cellular dysfunction, and reduced cerebral blood flow affecting various domains of cognitive function and is hence associated with an increased risk of cognitive impairment (1, 2). Body composition parameters like BMI and visceral fat in hypertensive individuals have shown to predict risk of cognitive dysfunction in geriatric population (3). However data on middle aged adults is sparse. Thus the study aimed at assessing cognitive abilities and body composition parameters of adults (40-60 years) suffering from hypertension.

Methodology:

A survey was conducted on 200 hypertensive patients (40-60 years) (100 males & 100 females) selected purposively from different clinics and hospitals. Cognitive ability of the participants was assessed using Mini Mental State Examination (MMSE) questionnaire. Information on anthropometric and body composition parameters was measured using standard procedures. Data were analysed statistically using SPSS Version 22.

Results:

According to the MMSE scores, 29 (14.5%) participants showed Mild Cognitive Impairment (MCI) including more number of females (20) than males (9). A negative non-significant association was seen between duration of disease and cognitive scores. The mean BMI, WC and total body fat were significantly higher than the reference values among all the participants, but visceral fat was significantly lower in males and females ($p < 0.05$). The mean bone mass was significantly lower than the reference value in males but higher in females ($p < 0.05$). Anthropometrical and body composition parameters showed interesting gender specific trends between participants with MCI & those with normal cognitive abilities. Only female participants with normal cognitive abilities showed significantly higher mean WC and WHR ($p < 0.05$) than those with MCI. Surprisingly, the mean visceral fat was significantly higher ($p < 0.05$) in all the participants with MCI as compared to normals. Similar trend was seen for bone mass in females which was reverse in males ($p < 0.05$). No significant differences were observed in other parameters like BMI, Total body fat, and muscle mass.

Conclusion:

MCI was prevalent among hypertensive patients and among various body composition parameters visceral fat might be used as a predictor of cognitive impairment among hypertensive adults. The findings add support to possibilities of interventions like prevention of general and abdominal obesity in early stages of cognitive decline, before it progresses to dementia.

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