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Cognitive Screening in Elderly Hypertensive Patients and Impact on Activities of Daily Living and on their Treatment: A Descriptive Study from a South Indian Tertiary-Care Medical College

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Abstract

Background: Hypertension in the elderly is strongly associated with cognitive impairment, which can significantly affect activities of daily living (ADL).

Early screening can guide timely interventions and improve quality of life in elderly like by preventing falls.

Objective: To assess cognitive status using MoCA/MMSE in elderly hypertensive patients and evaluate its impact on ADL.

Methods: A cross-sectional study of 150 patients (≥60 years) in the Neurology OPD of a tertiary care medical college. Standardized tools (MoCA/MMSE for cognition, Barthel Index for ADL) were used. Data were analyzed using descriptive statistics, chi-square tests, and Pearson correlation.

Results: Mean age was 68.4 ± 6.1 years, with 56% males. Mild cognitive impairment (MCI) was detected in 42% of patients, moderate in 15%, severe in 3%, and normal cognition in 40%. Significant negative correlation was observed between cognitive scores and ADL scores ($r = –0.58$, $p<0.001$). Patients with MCI had 20% lower ADL performance scores than those with normal cognition.

Conclusion: Cognitive decline is common among elderly hypertensive patients and correlates strongly with functional impairment. Routine cognitive screening.

Keywords: Headache, ADL, Cognitive assessment, MMSE/MOCA, treatment impact.

Introduction

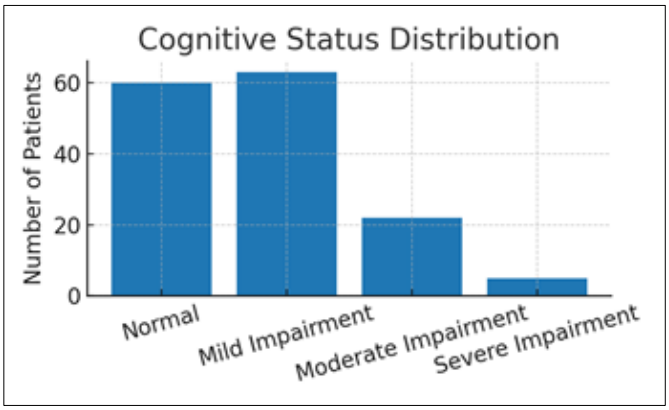
Hypertension is a well-established modifiable risk factor for vascular cognitive impairment and dementia. Despite its high prevalence in elderly populations, cognitive screening is rarely integrated into routine OPD care. This study aims to evaluate the cognitive profile of elderly hypertensive patients and assess its impact on daily functioning.

Methods

1. **Study Design**: Cross-sectional observational study.
2. **Sample Size:** 150 elderly hypertensive patients (≥60 years).
3. **Setting**: Neurology outpatient department of a tertiary care medical college.
4. **Tools**: Montreal Cognitive Assessment (MoCA) or Mini-Mental State Examination (MMSE) for cognition, Barthel Index for ADL.
5. **Statistical Analysis**: Descriptive statistics, chi-square test for categorical variables, Pearson correlation for continuous variables.

Results

Cognitive Status	Number of Patients
Normal	60
Mild Impairment	63
Moderate Impairment	22
Severe Impairment	5



Mild cognitive impairment was most prevalent (42%), followed by normal cognition (40%), moderate impairment (15%), and severe impairment (3%). Cognitive scores negatively correlated with ADL scores ($r = –0.58$, $p<0.001$).

Discussion

Our study demonstrates a high prevalence of cognitive impairment among elderly hypertensive patients attending a tertiary care OPD. The inverse relationship between cognition and ADL performance underscores the need for routine screening to prevent functional decline. These findings align with recent global studies emphasizing early detection of MCI in vascular risk groups.

Conclusion

Cognitive impairment is common in elderly hypertensive patients and adversely impacts daily functioning. Routine cognitive screening in OPD settings can help initiate early interventions to preserve independence.

Appendix

MOCA/MMSE

Barthel Index for ADL

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