

Frequency of Cognitive Dysfunction and Its Correlation with Blood Pressure Levels in Patients with Sickle Cell Anemia

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Introduction: Cognitive dysfunction in patients with sickle cell anemia has been repeatedly documented, including deficits in intellectual functioning, attention, memory, executive function, and processing speed.

Objective: To study cognitive function and blood pressure levels in patients with sickle cell anemia in Luanda, Angola.

Material and Methods: An observational study was conducted including 61 patients with sickle cell anemia followed by the NGO EFATHA in Luanda, Angola. Blood pressure was measured three times on the arm in a seated position after 5 minutes of rest using a semi-automatic device (Omron®, Japan). Cognitive function was assessed using the Montreal Cognitive Assessment (MoCA). Variable distribution was analyzed using the Kolmogorov–Smirnov test; normally distributed variables were presented as mean and standard deviation, and categorical variables as frequencies and percentages. Spearman’s correlation coefficient was used to assess correlations, with $p < 0.05$ considered statistically significant.

Results: The sample consisted of young adults (27.5 ± 7.9 years), predominantly women (62.9%), mostly single (82.3%), with relatively high education (13.9 ± 3.6 years completed). Mean systolic and diastolic blood pressures were 103.3 mmHg and 61.6 mmHg, respectively. More than two-thirds (71%) of participants exhibited cognitive dysfunction, and the prevalence of hypertension was 5%. A weak but significant negative correlation was observed between blood pressure levels and cognitive function.

Conclusion: Cognitive dysfunction was highly prevalent among patients with sickle cell anemia and was negatively correlated with blood pressure levels.

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