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Integrative therapy postpones cognitive decline in demented depressed patients in real-life geriatric patients with multiple chronic illnesses: A 60-month follow-up of a naturalistic study

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Background: Dementia and especially Alzheimer disease is characterized by multiple pathophysiological processes including but not limited to amyloid and tau deposition, inflammatory changes, microcirculatory abnormalities, hypoxia/hypoperfusion, chronic subcellular, cellular and tissue oxidative stress and mitochondrial failure and energy crisis. Recently we have shown the possibilities the preservation and improvement of cognitive tasks in depressed and demented patients after 24, 36 months and 48 months of combined pharmacological and non-pharmacological treatment. Here we report our recent completed results, naturalistic study in the same outpatient setting at 60 month follow up.

Patients Selection and Methods: This is a naturalistic study of a group consisting of 156 medically ill, physically disabled patients with mild to moderate and in some cases severely dementia and depression. Data were analyzed from charts of patients who had been in the treatment for 60 month. Patients were pharmacologically treated with antidepressants, cholinesterase inhibitors and NMDA antagonists, along with their regular medication regimen. Non-pharmacological intervention was centered on a home-based program of physical and cognitive exercises along with supplementation (multivitamins, vitamin E, L-methylfolate, acetyl-l-carnitine plus alpha-lipoic acid, omega-3, and coenzyme Q-10) and diet modification. Cognitive assessment with the Mini Mental Status Exam, Clock Drawing Task (CDT), Verbal and Category Fluency Task and the Neurobehavioral Cognitive Status Examination (Cognistat) was performed yearly. Statistical analysis was done via SPSS 16 utilizing descriptive and non parametric statistical analysis (Wilcoxon signed-rank test). All statistical analysis was two-tailed with $p<.05$ considered significant.

Results: Cognitive assessments were performed yearly. All the participants had depression and memory declines. Most of the cohort suffered from anxiety and insomnia (83.3%, 82.0%, respectfully). A significant amount of patients had hypertension (85.3 %), dyslipidaemia (71.8%) and coronary artery disease (58.3%). For whole period of observation, performance of all tasks in this cohort remained at or above baseline. As we reported earlier by the end of 48 months significant improvement relative to baseline was seen on the CDT, and Cognistat subtests (orientation, attention, repetition and construction). By 60 months of treatment all parameters showed statistically significant improvement compared to baseline. This held true at 60 months of treatment with the exception of a single By 60 months most of the tests were still significantly above baseline. Only Cognistat subtest (calculation) which had no statistically significant change from the baseline. After 60 months of treatment, performance of all tasks remained at or above baseline. In addition, the MMSE, Cognistat–Attention, Cognistat–Judgment, and RFFT - Total Unique Designs demonstrated significant improvement.

Conclusion: Our results, for the first time, demonstrate arrest in cognitive decline in demented/depressed patients with multiple medical co-morbidities for 60 months. Future addressing detailed investigations topic regarding the addressing the application of a combined, integrative treatment model in Alzheimer and other type of dementia are warranted.

Biography

Gjumrakch Aliev, MD & PhD has completed his PhD at the age of 29 years from Moscow State University and Institute of Human Morphology, Russian Academy of Medical Sciences, and Postdoctoral studies from University College of London, United Kingdom (advisor, Professor Geoffrey Burnstock). He is the President and CEO of "GALLY" International Biomedical Research Consulting LLC, San Antonio, TX, USA a premier Biomedical Research service organization. He also serves as a Professor of Cardiovascular Neuropathology, Geriatrics and Health Sciences and Healthcare Administration at the University of Atlanta, GA, USA. He has published more than 200 papers in reputed journals and serving as an Editors in Chief and Editorial Board Member of repute (more than 100). He is one of highly cited authors for his study the involvement of the mitochondria as a primary target in human diseases.

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