

European Stroke 2020: Early intervention in vascular cognitive impairment

Anne L. Foundas, M.D., FAAN Brain Institute of Louisiana

Vascular dementia (VaD) is one dementia subtype that occurs with increasing age. This diagnosis is found in about 20% of people with dementia. The world population is aging. It is estimated that by 2050 there will be over 1.6 billion people worldwide aged 65 and over (17% of the world's population). The greatest risk for VaD is a history of vascular risk factors (e.g., hypertension, hyperlipidemia) and increasing age. These vascular risks are associated with microvascular disease and stroke. Many people with neurodegenerative diseases, like Alzheimer's disease, also have microvascular disease and, therefore, have a mixed-type of dementia. These mixed-dementia patients often have a more malignant disease progression. Our clinical and research programs focus on early intervention in individuals with vascular cognitive impairment, including innovative treatment approaches to change the trajectory of cognitive decline. This talk will include an overview of the clinical and pathological heterogeneity of VaD. The second part will emphasize clusters of patients with vascular cognitive impairment, including major cognitive markers that seem to be prevalent across clinical subtypes. In the third part preliminary data will be presented that highlights our clinical approach that includes the innovative use of neural stimulation and photobiomodulation. Our clinical research team uses a two-pronged approach to: (1) improve communication skills and functional independence in patients with a cognitive decline, and (2) facilitate early identification and treatment of at risk individuals. This discussion will focus on our innovative treatment approaches designed to enhance functional independence, improve communication skills, and reduce caregiver burden. Vascular dementia (VaD) is one dementia subtype that occurs with increasing age. This diagnosis is found in about 20% of people with dementia. The world population is aging. It is estimated that by 2050 there will be over 1.6 billion people worldwide aged 65 and over (17% of the world's population). The greatest risk for VaD is a history of vascular risk factors (e.g., hypertension, hyperlipidemia) and increasing age. These vascular risks are associated with microvascular disease and stroke. Many people with neurodegenerative diseases, like Alzheimer's disease, also have microvascular disease and, therefore, have a mixed-type of dementia. These mixed-dementia patients often have a more malignant disease progression. Our clinical and

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