

## Vascular Dementia (VaD)

### **What is VaD?**

One of the most common attributes of aging is a progressive change in our blood vessels, and when this occurs in the brain, it is referred to as cerebrovascular disease. As the walls of our blood vessels begin to thicken and harden, the space available for blood to flow is reduced and may eventually be stopped all together. When this occurs suddenly the result is a stroke, and the person may experience symptoms involving movement, coordination, weakness, language, and memory. When blood flow is decreased slowly over time, the person may begin to gradually experience problems with thinking and memory, which may appear to some to be the early signs of Alzheimer's disease. This chronic reduction in blood flow is what eventually results in VaD. There are several different types of VaD that can present with slightly different symptom patterns and presentation on neuroimaging studies such as MRI and CT-scan.

### **What are the symptoms of VaD?**

Similar to Alzheimer's disease, the cognitive changes in VaD may remain mild for a substantial period of time, slowly worsening over multiple years. The person may experience slowed thought process, difficulty with attention, word finding difficulty, and problems with recalling memories. As the disease progresses, the person with VaD may experience increased difficulty caring for themselves, often requiring caregiver assistance to help with managing medications, finances, and transportation needs.

### **What are the causes of VaD?**

VaD can occur as a result of many factors. Our lifestyle, what we eat, alcohol consumption and smoking all can impact our risk for developing cerebrovascular disease. Medical conditions such as high blood pressure, high levels of fats in our blood, and diabetes are all considered risk factors for cerebrovascular disease and VaD. Similar to Alzheimer's disease, our genetic makeup can also predispose us to VaD.

### **How is VaD diagnosed?**

Much like Alzheimer's disease, VaD can be difficult to diagnose and it is possible to have both Alzheimer's disease and VaD. New technology is making diagnosis somewhat easier. Brain imaging techniques can reveal if areas of the brain are damaged due to cerebrovascular disease. However, as we age it is not uncommon for senior adults to have some degree of cerebrovascular changes on neuroimaging, which may or may not be resulting in cognitive impairment. Thus, neuropsychological testing is used in conjunction with neuroimaging to assess what degree of cognitive impairment may be resulting from cerebrovascular changes observed in the brain. Because VaD may affect only a specific area of the brain, neuropsychological testing not only can help with diagnosis, but can also provide specific information regarding the individuals remaining cognitive abilities.

### **What treatment is available for VaD?**

Unfortunately, there is no way to reverse damage to the brain once it has occurred. Thus, the earlier the diagnosis is made the better, as there are often medical interventions that can be used to help minimize the risk of future cerebrovascular events, thus preserving remaining brain tissue. For example, medical management of conditions such as high blood pressure and diabetes can help to reduce the risk of future stroke and cognitive decline. For people diagnosed with VaD, there is a growing amount of literature supporting that medications used to treat Alzheimer's disease may also be helpful in slowing cognitive decline with VaD as well. There is ongoing research in this area, but unfortunately these medications have not yet been approved by the FDA for treatment of VaD.

For further information, or if you would like to schedule an appointment with The Memory Center, please feel free to contact us at the address and phone number listed below.

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