ALZHEIMER'S TREATMENTS ON THE HORIZON REPORT #3018

BACKGROUND: Alzheimer's is a progressive neurological condition that makes the brain shrink causing brain cells to die. The disease causes decline in thinking and behavioral skills that allow to us function normally in society. 5.8 million adults over age 65 in America suffer from Alzheimer's. The biggest early symptom is forgetting recent conversations and experiences. As symptoms increase and conditions become worse, severe memory loss takes place and most suffer loss of ability to perform any daily task. There are currently existing medications that can briefly stall symptoms and often allow patients to preserve daily operations for an extended period. There is, however, currently no cure for Alzheimer's Disease. Treatment of Alzheimer's disease is difficult because of trouble transporting therapeutic agents across the blood-brain barrier. In the most severe stages of the disease brain function is lost, all memory of identity is often lost, and the infection spreads, causing death.
(Source: https://www.nia.nih.gov/health/alzheimers-disease-fact-sheet https://www.sciencedaily.com/releases/2022/07/220715085013.htm)

THE STUDY: Professor Claudio Soto from The Department of Neurology with McGovern Medical School led a team of researchers to perform series of whole blood exchange treatments in effort to restore blood from mice displaying Alzheimer's disease proteins with healthy blood from mice with the same genetic profiles. They found that manipulating coursing elements in Alzheimer's could be the answer to finding a cure. The team took several blood transfusions and found that evolution of cerebral amyloid plaques from the mice being tested was reduced by 40 to 80 percent. The reduction also proved to show spatial memory performance in older mice, lowering growing levels of plaque over time.
(Source: https://www.sciencedaily.com/releases/2022/07/220715085013.htm)

NEW REGULATIONS: According to the Mayo Clinic, the future of Alzheimer's Disease treatments include a variety of medications alike to the treatments for many cancers or HIV. New treatments being developed aim at microscopic clumps of beta-amyloid (plaques.) These are a defining sign of Alzheimer's Disease. The approach to targeting these will be through recruiting out immune systems, stopping destruction, and blocking production. In Summer of 2021, the Food and Drug administration approved aducanumab as a potential treatment in some cases. It targets and removes amyloid plaques in the brain. Saracatinbi is being tested to prevent destruction in Alzheimer's. The drug turned off proteins that made synapses work again when tested in mice. Another drug studied to possibly treat Alzheimer's called lecanemab, has also shown hope in treating future patients. A phase 3 clinical trial discovered that the medicine used delayed cognitive decline in patients suffering from Alzheimer's by 27 percent. Human trials are afoot in many of these cases and researchers believe effective treatments will arise as many drugs go into trial in 2023.
(Source: https://www.mayoclinic.org/diseases-conditions/alzheimers-disease/in-depth/alzheimers-treatments/art-20047780)

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