Viewpoint: Dead-end drugs? First-generation breakthrough Alzheimer's treatments are falling short of expectations

The quest to find effective treatments for Alzheimer's disease has historically been a lost cause — a field littered with failed drugs and dashed hopes. According to a recent systematic review, between 2003 and 2022, of the 100 compounds against the devastating cognitive disease in phase II and III trials, only two drugs made it through the rigorous gambit of pharmaceutical science. Alas, their beneficial effects were too small to make a meaningful difference to patients.

Then, like beacons of light in the dark, two drugs emerged over the past two years from phase III clinical trials as the first "disease-modifying" treatments for Alzheimer's disease. Eisai and Biogen's lecanemab burst onto the scene first, with data suggesting that it slowed cognitive decline by 27%. Eli Lilly's donanemab followed with more impressive results, slowing decline by 35%.

Just over two-thirds of participants receiving lecanemab actually had their brains effectively cleared of amyloid plaques. More than 80% of those given donanemab did.

But this is where the drugs start to lose their sheen. Lecanemab and donanemab removed the amyloid plaques, yet the Alzheimer's patients in the trials continued to decline. (Remember, the drugs only slowed the disease. They didn't stop it.) This suggests that beta-amyloid buildup is likely not the primary cause of Alzheimer's, hinting that the drugs' overall effectiveness will be limited over the long term.

This is an excerpt. Read the full article here