

CN-105 and Postoperative Delirium in Older Patients: The Phase 2 MARBLE Randomized Study

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Why We Did This Study

Older adults can develop delirium after surgery. Delirium is a sudden change in attention, thinking, and awareness that can lead to longer recovery and other health problems. Researchers wanted to test whether CN-105, an experimental drug designed to reduce inflammation in the brain, could be given safely to older adults having surgery and whether it might lower the risk or severity of postoperative delirium.

Who Participated in This Study?

The study included 186 adults aged 60 years or older who underwent major surgery at Duke University Medical Center. The average age was about 69 years, and 64% were male. Participants were randomly assigned to receive either CN-105 or a placebo. Of the participants, 137 received CN-105 and 49 received placebo. Participants were followed after surgery to assess safety, delirium, and other outcomes.



What Were the Results?



CN-105 was generally safe and was given successfully within the planned treatment schedule. Participants who received CN-105 had fewer medical events after surgery than those who received placebo. Postoperative delirium occurred in 19.3% of participants who received CN-105 and 26.5% of those who received placebo.

However, the difference between the two groups was too small to confirm that CN-105 reduced delirium. Measures of inflammation in spinal fluid were also similar between the two groups.

What Do These Results Mean?

The results suggest that CN-105 can be administered safely to older adults undergoing major surgery. The study also showed fewer post-surgery medical events in

participants who received CN-105. Although fewer participants in the CN-105 group developed delirium, the study was not able to prove that the drug reduced delirium because the difference between groups could have occurred by chance. The findings support conducting a larger study to determine whether CN-105 can reduce postoperative delirium and improve recovery after surgery.

For more information, the full publication of the MARBLE study's results is available at <https://pmc.ncbi.nlm.nih.gov/articles/PMC13049496/>.
