Cardiovascular Safety of Obesity Drugs

According to a study published in *JAMA*, the cardiovascular safety of obesity drug combination naltrexone-bupropion is uncertain especially in light of the unanticipated early termination of a clinical trial to determine its safety.

To date, drugs that have been used to treat obesity have only provided mixed results and modest weight loss. No significant reduction in cardiovascular events has been observed. Two other therapies fenfluramine and sibutramine have also been removed from the market because of evidence that they could cause cardiovascular harm. Regulatory authorities are thus rightly concerned about the cardiovascular safety of new drugs aimed to treat obesity.

The combination of naltrexone and bupropion has shown weight reduction during phase 3 clinical trials. However, FDA approval of the treatment had been deferred due to safety concerns related to increases in blood pressure and heart rate.

During this study, the researchers assigned 8,910 overweight or obese patients at increased cardiovascular risk to receive placebo or naltrexone/bupropion. All participants received an internet-based weight management programme. The study researchers evaluated whether the combination treatment increased major adverse cardiovascular events (MACE) such as cardiovascular death, nonfatal stroke or nonfatal heart attack as compared to placebo.

Findings showed that MACE occurred in 1.3 percent of placebo-treated patients as compared to 0.8 percent of naltrexone-bupropion treated patients at 25 percent interim analysis. At 50 percent of planned events, outcomes became less favourable for the combination treatment group with MACE occurring in 2.3 percent of patients as compared to 2.0 in the placebo group. Based on the public release of confidential interim data after 25 percent of planned events, the academic leadership of the study decided to terminate the trial.

The authors of the study point out that the findings do not establish the prespecified margin of noninferiority but the cardiovascular safety of the drug treatment remains uncertain and requires further evaluation.

“...the events leading to the termination of the study serve as a valuable reminder of the importance of maintaining confidentiality during ongoing trials. Premature release of interim data can result in inappropriate prejudgment about the benefits or risks of the studied therapy and make completion of the trial highly problematic. An FDA guidance for industry explicitly states that interim data from an ongoing clinical trial should remain confidential and warns that ‘such knowledge can bias the outcome of the study by inappropriately influencing its continuing conduct or the plan of analyses.’”

Source: *JAMA*.

Image Credit: YouTube

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