Study questions long term beta blocker use to curb further heart attack risk

May 2 2023

Credit: Pixabay/CC0 Public Domain

The accepted clinical practice of using beta blockers over the long term to curb the risk of further heart attacks or death doesn't seem to be warranted in patients who don't have heart failure, suggests a large study

published in the journal *Heart*.

The researchers found no difference in these risks between patients taking beta blockers more than a year after their heart attack and those who weren't on these drugs.

Beta blockers are a class of drugs that are predominantly used to manage abnormal heart rhythms, as well as angina and high blood pressure. They are routinely prescribed after a heart attack to lower the risk of recurrence and other cardiovascular complications–a practice referred to as secondary prevention.

But it's not clear if these drugs are warranted in patients who don't have heart failure, or a potentially fatal complication of heart attack known as left ventricular systolic dysfunction, or LVSD for short, beyond the first year.

Most of the current evidence is based on the results of clinical trials that predate major changes to the routine care of heart attack patients, explain the researchers.

To strengthen the evidence base, the researchers drew on 43,618 adults who had had a heart attack between 2005 and 2016 that required hospital treatment, and whose details had been entered into the national Swedish register for coronary heart disease (SWEDEHEART).

None of these patients had heart failure or LVSD: 34,253 of them were prescribed beta blockers and were still on these drugs 1 year after hospital discharge; 9365 hadn't been prescribed these drugs. Their average age was 64 and around 1 in 4 were women.

The researchers wanted to find out if there were any differences between the two groups in terms of deaths from any cause and rates of

further heart attacks, revascularisation—a procedure to restore blood flow to parts of the heart—or hospital admission for heart failure.

The real time data showed that long term treatment with beta blockers wasn't associated with improved cardiovascular outcomes during an average monitoring period of 4.5 years.

Some 6475 (19%) of those on beta blockers, and 2028 (22%) of those who weren't, died from any cause, or had another heart attack, or required unscheduled revascularisation, or were admitted to hospital for heart failure.

And after accounting for potentially influential factors, including demographics and relevant co-existing conditions, there was no discernible difference in the rates of these events between the two groups.

This is an observational study, and as such, can't establish cause, And although it's the largest study of its kind to date, the findings should be viewed in the context of certain limitations, acknowledge the researchers.

Patients weren't randomly assigned to treatment; only certain cardiovascular outcomes were included; there was no indication of how consistently patients took their drugs; nor any information on their health related quality of life.

And there were some differences between the two groups in respect of factors known to influence the risk of poor cardiovascular outcomes.

But, the researchers point out, beta blockers are associated with several side effects such as depression and fatigue, and it's now time to reassess the value of long term treatment with these drugs in heart attack patients

who don't have heart failure or LVSD, they suggest.

In a linked editorial, Professor Ralph Stewart and Dr. Tom Evans, of Green Lane Cardiovascular Services, Auckland, New Zealand (Aotearoa), state: "Despite strong evidence that long-term beta-blockers can improve outcomes after [heart attack], it has been uncertain whether this benefit applies to lower risk patients who are taking other evidence-based therapies and who have a [normal functioning heart]."

They point out:"Recommendations on the duration of beta blocker therapy are variable or absent because this question was not specifically evaluated in clinical trials. Most patients take daily medications for many years after a [heart attack] because they believe they are beneficial."

And they conclude: "[This] study raises an important question directly relevant to the quality of care—do patients with a normal [functioning heart] benefit from long term beta-blocker therapy after [heart attack]? To answer this question, more evidence from large randomized clinical trials is needed."

More information: Association of beta-blockers beyond 1 year after myocardial infarction and cardiovascular outcomes, *Heart* (2023). DOI: 10.1136/heartjnl-2022-322115

Tom Evans et al, Should beta-blockers be recommended after myocardial infarction when left ventricular ejection fraction is normal?, *Heart* (2023). DOI: 10.1136/heartjnl-2023-322544

Provided by British Medical Journal

2) retrieved 1 May 2024 from
https://medicalxpress.com/news/2023-05-term-beta-blocker-curb-heart.html