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Long-term Beta-Blockers Not Needed After MI with Preserved Systolic Function?

Medscape

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Beta-blocker treatment beyond 1 year after myocardial infarction (MI) for patients without heart failure or left ventricular systolic dysfunction was not associated with improved cardiovascular outcomes in a new analysis of a nationwide cohort of more than 40,000 patients.

"The results of our study address an existing gap in the current evidence and provide an insight into long-term optimal secondary prevention strategies for a large proportion of MI survivors, namely patients with no heart failure or left ventricular systolic dysfunction who may have longer survival compared with those who develop such complications after an MI," state the authors, led by Divan Ishak, MD, Uppsala University, Sweden. The study was published online in Heart on May 2.

The researchers explain that clinical outcomes following MI have improved in recent years, partly because of the use of evidence-based therapies including timely reperfusion and secondary prevention medications. As such, more patients are surviving MI with no heart failure or left ventricular systolic dysfunction.

Beta-blockers are an established therapy for patients with heart failure and/or left ventricular systolic dysfunction because they reduce morbidity and mortality. For those without heart failure or left ventricular systolic dysfunction, evidence supports the use of beta-blockers in the early phase after MI, but there is uncertainty as to whether they should be continued beyond the first year in the absence of other clinical indications.

In historical randomized trials, longer-term beta-blocker therapy has been shown to reduce mortality rates, but these trials were conducted before the introduction of invasive reperfusion strategies and antithrombotic agents into routine MI care. More recent studies have been limited by the inclusion of only a subset of MI patients, relatively small sample size, or short follow-up, the authors note.

While more comprehensive randomized trials are in progress, the benefit of beta-blockers in the chronic phase beyond the first year might remain unknown and the long follow-up required to draw firm conclusions may be challenging to achieve.

The current study therefore aimed to investigate the association between beta-blocker therapy and cardiovascular outcomes beyond the first year after MI in patients without heart failure or left ventricular systolic dysfunction using real-world data from the SWEDEHEART registry of patients with coronary heart disease in Sweden.

The study included all 43,618 patients aged 18 years or over with MI, including ST-elevation (STEMI) and non-STEMI, who had been hospitalized at one of the 74 cardiac care units in Sweden between 2005 and 2016.

Follow-up started 1 year after hospitalization (index date). Patients with heart failure or left ventricular systolic dysfunction up until the index date were excluded. Patients were allocated into two groups according to beta-blocker treatment. The primary outcome was a composite of all-cause mortality, MI, unscheduled revascularization, and hospitalization for heart failure.

Results showed that, overall, 78.5% of patients received a beta-blocker and 21.5% did not take a beta-blocker at the index date 1 year following MI. The median age was 64 years, and 25.5% were female. The median follow-up was 4.5 years.

In the intention-to-treat analysis, the unadjusted rate of primary outcome was lower among patients who received a beta-blocker versus those who did not (3.8 versus 4.9 events/100 person-years; hazard ratio [HR], 0.76; 95% confidence interval [CI], 0.73 to 1.04).

However, following inverse propensity score weighting and multivariable adjustment, the risk of the primary outcome was not different according to beta-blocker treatment (HR, 0.99; 95% CI, 0.93 to 1.04). These findings were consistent across individual secondary endpoints and across patient subgroups.

The authors say that this is the largest study to have evaluated beta-blocker therapy in patients without heart failure or left ventricular systolic dysfunction following MI. Although the design is observational, it includes a large sample of patients, has a median follow-up of 4.5 years, and implements causal inference techniques, they state.

They also point out that the results align with those of a recent meta-analysis of contemporary trials looking at this question.

They note that the potential mechanism of beta-blockers in improving cardiovascular outcomes following MI

is attributed to the inhibition of the sympathetic overdrive, lowering heart rate, and thus reducing myocardial oxygen consumption.

However, routine and timely coronary reperfusion, as well as usage of potent antiplatelet therapy, reduces infarct size, minimizing the upregulation of sympathetic activity, particularly in those individuals who do not sustain substantial myocardial damage.

In addition, beta-blockers have been associated with several side effects, including depression and fatigue, so determining whether they are indicated beyond the first year after MI may have an impact on patient health-related quality of life, the authors suggest.

They note that the study had a number of strengths including a large sample size, a representative study population, detailed information on risk markers used for the propensity adjusted analysis, and unbiased evaluation of outcomes from administrative datasets up to 12 years after the index MI.

But they caution that the potential for unrecognized confounding is a limitation, and therefore more evidence from large randomized clinical trials is needed to answer this question.

Cell Phone Use Linked to Hypertension Risk?

Medscape

May 10, 2023

Using a mobile phone to make or receive calls for just 30 minutes a week is associated with an increased risk of developing hypertension, a large observational study using UK Bio bank data suggests.

The study showed adults who spent that at least a half-hour per week on their mobile phone had a 12% increased risk of developing hypertension, whereas those who spent more than 6 hours weekly had a 25% increased risk, compared with a weekly usage time of under 5 minutes.

The investigators caution, however, that the results are purely "hypothesis-generating" and require confirmation, the researchers say.

"This study should not be considered a basis to recommend reducing time spent using mobile phones to make calls as a technique to avoid hypertension," Matthew Tomey, MD, cardiologist, Icahn School of Medicine at Mount Sinai in New York City, told theheart.org | Medscape Cardiology.

"The study is retrospective and, like all retrospective studies, there was a huge risk for unmeasured confounding variables. There is no need at this point, based on the available evidence, to limit cell phone usage because it might result in higher frequency of hypertension," said Estes, professor of medicine, Division of Cardiology, University of Pittsburgh, Pennsylvania.

The study was published online May 4 in European Heart Journal – Digital Health.

Mobile phones emit low levels of radiofrequency energy, which has been associated with increased blood pressure after short-term exposure. However, potential ties between mobile phone use for making and receiving calls and risk of new-onset hypertension remain uncertain, they note.

To investigate, Xianhui Qin, MD, PhD, Southern Medical University, Guangzhou, China, and colleagues evaluated data on 212,046 adults (mean age, 54 years; 62% women) from the UK Biobank without a history of hypertension.

Information on mobile phone usage to make and receive calls was collected through a self-reported questionnaire at baseline, including years of use, hours per week, and using a hands-free device/speakerphone. The vast majority (88%) of participants were mobile phone users, defined as using a mobile phone at least once a week. During a median follow up of 12 years, 13,984 (7%) participants developed new-onset hypertension.

After adjusting for multiple confounding factors, mobile phone users had a 7% higher risk of new-onset hypertension (hazard ratio [HR] 1.07; 95% CI, 1.01 - 1.12; P = .018), compared with non-users.

Among mobile phone users, compared with those with a weekly usage time of less than 5 minutes, significantly higher risks of new-onset hypertension were found in those with a weekly usage time of 30 minutes to more than 6 hours. The results were similar in women and men. Adults with high genetic risk for hypertension who spent 30+ minutes on their mobile phone had a 33% higher likelihood of new-onset hypertension (HR, 1.33; 95% CI, 1.24 - 1.43) compared with peers with low genetic risk who spent greater than 30 minutes a week on the phone.

Years of mobile phone use and using a hands-free device/speaker phone were not significantly related to the development of hypertension.

The investigators caution that the UK Biobank does not include data on the type of mobile phone technology used, and other sources of electromagnetic waves. Another limitation is that the study population is predominantly White middle-aged adults or White older adults and healthier than the UK general population. A third limitation is that information on mobile phone use was assessed once at baseline and usage might have changed over time.

Tomey noted that the study is not designed to establish a

causal linkage and said postulated mechanisms for a biological connection between mobile phone use to make calls and hypertension "remain speculative."

Nonetheless, "we should absolutely be thinking hard about the impact of mobile device usage on our health, not simply about the impact of radiofrequency electromagnetic fields, but more profoundly (and insidiously) about the effects of device usage and media consumption on our attitudes, habits, and psychosocial well-being," Tomey said.

Estes encourages physicians to look at this study as "an opportunity to have a discussion with their patients about hypertension in general and the importance of a low salt diet, regular physical activity, limiting alcohol, maintaining healthy weight, decreasing stress, smoking cessation and, importantly, monitoring your blood pressure yourself and working with your healthcare team."

"Cell phones are irrelevant," when it comes to hypertension, he told theheart.org | Medscape Cardiology.

Behavioral Therapy Reduces Long COVID Fatigue: Study

Medscape

May 10, 2023

People with long COVID significantly reduced their fatigue after completing 17 weeks of cognitive behavioral therapy, compared to people with similar long COVID fatigue levels who didn't participate in therapy, a new study shows.

Cognitive behavioral therapy, or CBT, is a structured talk therapy approach in which a trained therapist helps a person become aware of their own perspective and learn to change how they respond to situations and challenges.

Led by researchers from Amsterdam University Medical Center, the study followed 114 people in The Netherlands who had experienced severe fatigue for at least 3 months after being infected with COVID. Half of the patients were randomly assigned to participate in 17 weeks of cognitive behavioral therapy focused on their fatigue, and the other participants received no special intervention and just continued their usual care for long COVID. People in the study who were assigned to CBT could do online or in-person therapy.

The researchers tailored the therapy plan to the specific aspects of fatigue associated with long COVID.

The therapy plan addressed seven areas:

1. A disrupted sleep-wake pattern
2. Unhelpful beliefs about fatigue
3. A low or unevenly distributed activity level
4. Perceived low social support
5. Problems with psychological processing of COVID-19
6. Fears and worries regarding COVID
7. Poor coping with pain

The CBT participants not only reduced their fatigue but also reported fewer concentration problems, less severe physical symptoms, and improved physical and social functioning. The findings were published Monday in the journal Clinical Infectious Diseases.

"Together with patients, we look, for example, at how they can improve their sleep-wake rhythm. We also help them become more active again with small, safe steps. For example, by going for short walks," said researcher and medical psychology professor Hans Knoop, PhD, in a statement.

"After behavioral therapy, patients not only had less symptoms but also functioned better both physically and socially," Knoop said. "Those improvements were still present even after six months."

CDC data shows that 11% of people in the U.S. who ever had COVID reported having long COVID, which is characterized by experiencing virus symptoms for an extended period of time.

The authors noted that their study had limitations that could have influenced the findings, including that none of the participants had been hospitalized for COVID. Also, all of the participants had been self-referred and therefore may have been more motivated to participate in therapy than if people were selected for the study in a different way.

FDA Expands Use of Dapagliflozin to Broader Range of HF

Medscape

May 09, 2023

The US Food and Drug Administration (FDA) has expanded the indication of dapagliflozin to include treatment of heart failure (HF) across the full spectrum of left-ventricular ejection fraction (LVEF) — including HF with mildly reduced ejection fraction (HFmrEF) and with preserved ejection fraction (HFpEF).

The sodium-glucose cotransporter 2 (SGLT2) inhibitor was previously approved in the US for adults with heart failure with reduced ejection fraction (HFrEF).

The expanded indication is based on data from the phase 3 DELIVER trial, which showed clear clinical benefits of the SGLT2 inhibitor for patients with HF regardless of left-ventricular function, as reported previously by theheart.org | Medscape Cardiology.

In the trial, which included more than 6200 patients, dapagliflozin led to a statistically significant and clinically meaningful early reduction in the primary com-

posite endpoint of cardiovascular (CV) death or worsening HF for patients with HFmrEF or HFpEFF.

In addition, results of a pooled analysis of the DAPA-HF and DELIVER phase 3 trials showed a consistent benefit from dapagliflozin treatment in significantly reducing the combined endpoint of CV death or HF hospitalization across the range of LVEF.

The European Commission expanded the indication for dapagliflozin (Forxiga) to include HF across the full spectrum of LVEF back in February, as reported by the heart.org | Medscape Cardiology.

The SGLT2 inhibitor is also approved for use by patients with chronic kidney disease. It was first approved in 2014 to improve glycemic control for patients with diabetes mellitus.

PSIM NEWS:

Workshop on "Women leadership in health care" by Royal College of Physicians in collaboration with PSIM

Royal College of Physicians in collaboration with the Pakistan Society of Internal Medicine organized a 3 days' workshop to empower women in health care leadership.

The program was attended by women physicians from all over Pakistan and they really appreciated such activities.

David Parry – Royal College of Physician London Deputy Head of Education oversees international education programmes - educationalist

Rebecca Selman - Royal College of Physician London Head of Delivery of Education- educationalist

Mathis Heydtmann - Consultant Gastroenterologist and Hepatologist based in Scotland - part of RCP faculty with interest in Medical Education and Research

Mumtaz Patel - Royal College of Physician Global Vice President, Consultant Nephrologist based in Manchester, Postgraduate Associate Dean were facilitators.

From the Pakistan Society of Internal Medicine, Dr. Somia Iqtadar - Secretary General PSIM was the coordinator for this activity.

Pakistan Society of Internal Medicine welcomed all the guests in a ceremony held in honor of the delegation from the Royal College of Physicians of London.

Best Case Report Competition by MIRCIM

Pakistan Society of Internal Medicine participated in the best case reports competition (BCRC) which was part of MIRCIM 2023. The event was held at Jagiellonian University Krakow Poland where participants from various internal medicine societies of the world participated. Dr. Sumayya Sami internal medicine resident from Aga Khan University made it to the final round of the poster competition. Dr Somia Iqtadar Secretary General PSIM was among the faculty of MIRCIM and was adjudicator of BCRC 2023.

Understanding Diabetes Mellitus New Perspective:

An alarming increase in the number of diabetics worldwide has prompted the Pakistan Society of Internal Medicine to educate Doctors about the different types of Diabetes and its Management.

A seminar on Monogenic Diabetes and the Role of Insulin in Type 2 Diabetes was organized by Faisalabad Chapter.

The seminar revealed that Pakistan was among the top three countries in terms of the ratio of diabetic patients. Prof. Aamir Shaukat educated the masses about monogenic Diabetes, its diagnosis and Management. Prof. Somia Iqtadar and Prof. Aziz Ur Rehman gave a brief talk on Early insulinization and Biphasic Insulin aspart. Dr. Muhammad Irfan moderated the session. Prof. Javed Ikram, Minister of Health, Government of Punjab and Umer Nazar Shah was the chief guest. The session was, attended by Vice Chancellor FMU Prof. Zafar Ali Ch, Principal Punjab Medical College Prof. Faisal Bilal, Principal Sargodha Medical College Prof. Rehman Guitar, Principal Independent Medical College Prof. Abdul Hafeez Ch, Heads of Medical Units PMC Prof. Amir Hussain, Prof. Hanif Nagra, Prof. Maqsood Ahmed and the majority of faculty members of FMU.

Below are Pictures of MIRCIM Activity in Poland:

Below are Pictures of Royal College Activity in Lahore Organized by PSIM:


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FARAKH IQBAL
Caretaker Provincial Health Minister Dr. Javed Akram met with the delegation from Royal College of Physicians of London at a local hotel. On this occasion, Dr. Mumtaz Patel, Dr. Bax, Prof. Akbar Chaudhry, Prof. Somia Iqtadar, Dr. Mathaz, Prof. Nadeem, Dr. Shahla Javed, Dr. Aftab Mohsin, Dr. Nabeel Akbar, Dr. Tariq Wasim, Prof. Khalid Mahmood and many people from the department of medicine participated. Dr. Somia Iqtadar welcomed all the guests in the ceremony held in honor of the delegation from the Royal College of Physicians of London.
PROF. JAVED AKRAM
President: Pakistan Society of Internal Medicine | International Adviser: Royal College of Physicians, London
@jakramaimc