

Young women have worse MI outcomes than men of same age

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Reuters Health -15/10/2020 - Long term mortality is higher in women than in men who have a myocardial infarction (MI) at a young age, a new study finds.

The review of data on more than 2,000 adults aged 50 and younger also showed that women were less likely to get invasive angiography and coronary revascularization and less likely to get aspirin and statins on hospital discharge, researchers reported in the *European Heart Journal*.

"For women to have a myocardial infarction under age 50 remains a relatively rare event, but when it happens, such women have a higher risk of dying compared to men having a heart attack," said coauthor, Dr. Ron Blankstein of the Harvard Medical School and Brigham and Women's Hospital.

"We need to identify and treat these women for any risks for cardiovascular disease and for non-cardiovascular disease that may be present," Dr. Blankstein said. "When women have a heart attack at a young age it's a signal that they are at high risk in the future and we need to be more aggressive in preventing both cardiovascular and non-cardiovascular disease in these women."

Their analysis included only patients with a Type 1 MI treated at two Harvard-affiliated hospitals between 2000 and 2016. Individuals with known coronary artery disease were excluded.

Most of the patients (81%) were male. The mean age was 44, and most, 73%, were white. The majority, 53%, had an ST-elevation myocardial infarction (STEMI). The women were less likely than men to have STEMI (46.3% versus 55.2%). The women also had lower median incomes than the men (\$65,300 versus \$72,600) and were significantly more likely to have public insurance (35.8% versus 28.6%).

The women were also more likely to have diabetes (23.7% versus 18.9%), rheumatologic conditions (6.7% versus 1.3%) and depression (24.1% versus 10.3%). The men were more likely to have hyperlipidemia (62.6% versus 44.9%) and to use illicit substances (22.3% versus 15.6%).

The women were less likely to undergo invasive coronary angiography (93.5% vs. 96.7%) and coronary revascularization (82.1% vs. 92.6%). They were significantly more likely to have non-obstructive coronary disease on angiography (10.2% vs. 4.2%).

The women were less likely to be discharged with aspirin (92.2% vs. 95.0%), beta-blockers (86.6% vs. 90.3%), angiotensin-converting enzyme inhibitors/angiotensin-receptor blockers (53.4% vs. 63.7%), and statins (82.4% vs. 88.4%).

While there was no significant difference in in-hospital mortality, the women who survived to hospital discharge experienced a higher all-cause mortality during a median follow-up of 11.2 years (adjusted HR= 1.63). There was no significant gender difference in cardiovascular mortality (adjusted HR = 1.14).

It's good to see a study looking at young women, said Dr. Hina Chaudhry, an associate professor of medicine and director of cardiac regenerative medicine at the Icahn School of Medicine at Mount Sinai.

Women who have heart attacks when they are young tend to be sicker than men of the same age, Dr. Chaudhry said. "Young women don't have heart attacks very often because estrogen is protective," she added. "It takes a lot to have a heart attack when a woman is premenopausal and so she's likely to be sicker--to have diabetes and other health problems."

The new findings fall in line with other research that looked at all women with heart attacks, Dr. Chaudhry said. "Women have not been treated appropriately," she added.

Other studies have shown that women who have a heart attack do better when they are treated by a woman cardiologist. If there is to be improvement, "we need more women in the field to manage these women."

The new study reinforces and complements what's been shown in other studies comparing women and men with heart attacks, said Dr. Katie Berlacher, an assistant professor at the University of Pittsburgh School of Medicine and director of the UPMC Magee Women's Heart Program.

"Even when men and women share the same risk factors, such as hypertension, diabetes and high cholesterol, those risk factors are much more dangerous in women," Dr. Berlacher said, adding that this at least partly explains the worse outcomes in women.

Dr. Berlacher was struck by the gender-related differences in treatment. "We need to do a much better job at finding out why women are not discharged with the right medications," she said.

Even if women are hesitant to be on statins because they've experienced side effects in the past, physicians need to work with them, Dr. Berlacher said. "We need to make sure they understand how important the drug is," she added. And if side effects are an issue, the physician can suggest taking the medication three or four times a week rather than every day, Dr. Berlacher said.

By Linda Carroll

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