

Why post-menopausal women are prone to heart attack/

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Recently we had a female patient in her early 60s who suffered a heart attack and fortunately survived it. All the time, she had been accompanying her husband to regular check-ups on his heart problem, without realizing she herself was a walking time bomb.



She has been a smoker most of her adult life. She has a strong family history of cardiovascular disease (CVD), with two male siblings undergoing heart bypass surgery in their early 50s. Her blood pressure (BP) went on upward trend after menopause, with high cholesterol levels. She showed no symptoms so she thought she was just fine, until she woke up in the middle of the night with severe chest tightness and shortness of breath.

She was rushed to the hospital, had an immediate declogging of the heart artery through angioplasty, and a small scaffolding-like metal called stent was inserted to keep the culprit coronary artery patent.

The same story happens so many times. Wife is so concerned about her husband with a heart problem and she neglects to have herself checked, or make sure that her lifestyle is not conducive to develop CVD.

Before menopause, women are protected by estrogen, the female reproductive hormone. This hormone has been shown to have a beneficial or cardioprotective effect on the inner layer of artery wall called endothelium.

After age 50

Endothelial dysfunction triggers the start of the atherosclerosis, which is the progressive narrowing of the artery. Estrogen prevents endothelial dysfunction, and helps maintain the flexibility of the blood vessels.

Flexible arteries can relax and expand to accommodate more blood and enhance the blood flow or circulation.

The onset of menopause is usually after the age of 50 (52 to 54 years of age on average). There are some who experience early menopause, signaled by the cessation of the monthly period at a much earlier age, even before age 40.

After menopause, estrogen decreases significantly and the heart protection is almost completely gone around eight to 10 years after menopause. This is usually when women are in their late 50s or early 60s.

Hence, the risk of developing a stroke, or heart attack, may increase and become higher in women compared to men at this age.

For those who have menopause at an early age, the increase in cardiovascular risk may occur at a much earlier age, when the women are just in their late 40s or early 50s.

Ovarian failure

The common cause is premature ovarian failure, but it may also be caused by damage to the ovaries as a result of cancer therapy and/or radiation treatments.

Another cause could be surgical removal of the ovaries if tumors in the female reproductive organs are diagnosed at a younger age.

The symptoms of premature menopause are pretty much the same as regular menopause, and include hot flashes, emotional instability or mood swing, vaginal dryness, decreased memory or comprehension, decreased libido or sex drive, and insomnia.

We have to clarify that menopause, by itself, does not cause CVD. It's just that the levels of the heart-protective female hormones, particularly estrogen, decrease, and risk factors increase

around the time of menopause.

These are increasing BP, high LDL (bad cholesterol) level, and low HDL (good cholesterol level).

The triglyceride level, another bad type of fat, also increases after menopause.

A reckless lifestyle in the form of a high-carb and high-fat diet, being sedentary, smoking, and other unhealthy practices — which women could have earlier in life — starts to take its toll after menopause.

Guidelines from various heart associations remind women to really take stock of their health when they're reaching menopause, so they can avert serious complications.

Since the cardiovascular risk in women peaks around eight to 10 years after the onset of menopause, women who are at high risk could be identified so that they could be treated more aggressively and monitored closely, preventing the complications which could occur years later. A recently published study suggests that a relatively higher level of the male hormone called androgen or testosterone in postmenopausal women is associated with increased risks of cardiovascular complications.

The study, published in the Journal of the American College of Cardiology, followed up 2,800 postmenopausal women initially free of CVD. The women had their sex hormone levels measured at baseline.

The researchers reported that during an average of 12-year follow-up, CVD was diagnosed in 283 participants, plus clogging of the heart arteries (coronary heart disease or CHD) in 171, and heart failure in 103.

Adjustments were made to discount the effect of conventional risk factors and hormone therapy. The following findings were reported:

Male hormone

Higher total testosterone (male hormone)/estradiol ratio was linked with significantly increased risks for all cardiovascular outcomes.

Higher total testosterone appeared to significantly increase risks for CVD and CHD.

Higher estradiol (female hormone) was associated with significantly lower CHD risk, reaffirming its heart protective effect.

Does this study suggest that we should give postmenopausal women estrogen hormone therapy to prevent CVD or CHD?

I don't think there's good data to support that recommendation. There are also potential complications of aggressive hormone therapy which doctors are wary about.

The importance of this study is that we could identify the post-menopausal women who are at risk of suffering potentially serious cardiovascular complications, and implement risk-reducing strategies such as end to smoking, regular exercise and balanced diet.

Which type of diet is really good remains a big issue, in view of various fad diets claiming cardiovascular benefits.

The American Heart Association and Philippine Heart Association recommend eating a balanced diet consisting of: fruits, vegetables, whole grains, low-fat dairy products, poultry, fish and nuts, with less red meat and minimal sugary foods and beverages.

Aside from a healthy diet and lifestyle, adequate control of elevated BP is recommended; as well as the use of cardioprotective drugs like statins even if the cholesterol levels are not that high.

The important thing, too, is to get rid of the misconception that only men are vulnerable to heart disease, and women are spared from them.

A change of this wrong mindset is necessary so that the beloved women in our lives are not deprived of the medical care and attention they need to prevent heart attack, stroke and other cardiovascular complications.

High testosterone level could indicate high risk