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Mummy Royalty Show Signs of Clogged Arteries 3,600 Years Ago, Scans Show

By Pat Wechsler - Apr 3, 2011

Clogged arteries seemed to run in the family of Ahmose-Henutemet, a queen during [Egypt's](#) 17th dynasty almost 3,600 years ago, according to research based on body scans of mummies.

Both the queen, who died in her 40s, and her sister, the princess Ahmose-Meyret-Anon, showed signs of atherosclerosis, a buildup of fatty substances in heart vessels that lead to heart attacks and stroke, according to a report today at the [American College of Cardiology](#) meeting in [New Orleans](#).

The study scanned 44 mummies from the royal family, their ministers and staff that still had remnants of arteries. It found 20 with a disease that doctors now mostly tie to the stresses and bad habits of modern life, said [Randall Thompson](#), a cardiologist and study author.

“The fact that they lived a very different lifestyle and still developed the disease raises questions about what we think we know about coronary disease,” said Thompson, who works at the [Mid America Heart Institute of Saint Luke's Hospital](#) in [Kansas City, Missouri](#). “Should we be focusing more on the genetics? Are we missing something?”

The specimens had all been members of the upper class when alive, so they may have suffered from the same higher standard of living that affects humans today. They ate more meat than most of the population and were likely less active than the common laborer of the period, Thompson said.

Cairo Museum

The researchers conducted the body scans at the Egyptian National Museum of Antiquities in Cairo after receiving permission from the Supreme Council of Antiquities of Egypt, the study said.

Seventeen were women and 32 men. Eleven of those found to exhibit atherosclerosis were men.

Some of the mummies analyzed still had remnants of hearts, such as Djehor, dubbed the Golden Mummy by the researchers because of the golden mask he wore within his sarcophagus. He lived sometime around 330 and 304 B.C. until the age of 50 or 60, old for the period. His scan, which showed signs of atherosclerosis, also displayed calcification of the heart vessels, the study said.

“Some people may take from this study that no matter what we do we are going to develop atherosclerosis if we live long enough,” said [Michael Miyamoto](#), a study author who teaches at the [University of California, San Diego](#). “I think it tells us that as humans we have a predisposition to develop the disease so we must do everything in our power -- exercise and watch our diets -- to avoid what we can.”

Plaque and Parasites

Atherosclerosis leads to [heart disease](#) when it builds up to the point that it chokes off blood flow to the cardiac muscle. Cardiovascular disease is the world's leading cause of death, killing more than 17 million people in 2010, the study said.

The prevalence of inflammatory conditions from parasites and infectious disease may also have contributed to the development of coronary disease, said Miyamoto, who works as a cardiologist with the Mission Internal Medical Group in Mission Viejo, [California](#). The inflammation can cause injury to the arteries and lead to plaque build-up, he said.

“This also should make us look more closely at possible links with periodontal disease,” Miyamoto said in a telephone interview. “That may be our next study to look at the mummies’ teeth.”

Studies have shown a possible link between periodontal and heart disease, he said.

The research was also published today online in the journal of the [American College of Cardiology: Cardiovascular Imaging](#).

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