

Cognitive Problems are Common after Cardiac Arrest



A major international study led by Lund University (Sweden) has found that half of all cardiac arrest survivors experience problems with cognitive functions such as memory and attention. Also, researchers were surprised to learn that a control group comprising heart attack patients had largely the same level of problems. The results suggest that it is not only the cardiac arrest and the consequent lack of oxygen to the brain that is the cause of the patients' difficulties.

The clinical trial covered 950 cardiac arrest patients in Europe and Australia. Six months after the cardiac arrest, half of the patients had died, and the survivors were followed up with cognitive screening tests. Both the patients and their relatives were also asked to report changes that had taken place following the cardiac arrest.

In addition, nearly 300 cardiac arrest survivors underwent more detailed tests and data were compared with the control group (heart attack patients).

"We thought there would be a clear difference between the groups, because the heart attack patients had not been exposed to any oxygen deficiency in the brain," says lead author Tobias Cronberg, MD, PhD, associate professor at Lund University and consultant neurologist at Skåne University Hospital in Lund. "However, they had signs of mild brain damage to almost the same extent as the cardiac arrest patients."

Hence, Dr. Cronberg and colleagues believe that the cognitive problems could be due to the risk factors that are common to patients with different types of heart complaint, for example diabetes, high cholesterol and high blood pressure. Other studies have already reported that these factors increase the risk of dementia.

As Dr. Cronberg points out, "If we are to provide good treatment to cardiac arrest patients, we don't just need to save their lives; we also need to ensure that they tackle these risk factors, for example through improved diet and more exercise. Otherwise they are at risk of developing dementia." He believes it would be good if all cardiac arrest patients received follow-up not just with regard to physical health, but also with regard to memory and attention.

The main aim of the clinical trial was to compare the effect of a body temperature of 33°C and 36°C following cardiac arrest. In a previous study, the research team has shown that maintaining a temperature of 36°C produced the same survival rate as cooling to 33°C.

"We have now also demonstrated that not only survival but also cognitive ability is the same in patients who have been kept at 33°C or 36°C. This is very important for the reliability of the results we have previously presented", explains Dr. Cronberg.

The new findings have been published in two distinguished journals, *Circulation* and *JAMA Neurology*.

Source: [Lund University](#)

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