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Sudden and unexpected - mechanisms for increase in cardiac arrests in Covid vaccinated people

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Deaths from cardiac arrest continue to occur "suddenly and unexpectedly". A new study has confirmed the mechanism by which Covid mRNA "vaccines" trigger sudden cardiac arrest in vaccinated people.

Pathologists Prof. Arne Burkhardt and Prof. Walter Lang have done fundamental research into the damage to the heart and subsequent blood vessels. Now a group of scientists in Germany and Hungary has confirmed that the spike protein from the mRNA vaccines penetrates the cells and forms "clusters" there.

When these clusters form in the heart cells, they cause inflammation and scarring that disrupt signaling in the heart and can trigger fatal cardiac arrest without warning. The results of the study appear to confirm the cause of the worldwide increase in sudden cardiac arrests that has been rampant since the introduction of mRNA vaccines in early 2021.

The study by Rolf Schreckenberg et al entitled *"mRNA-based SARS-CoV-2 vaccines: The intracellular aggregation of encoded spike monomers and their subunits as a cause of cardiac side effects"* was published in the medical journal Frontiers in Immunology.

The results show that spike proteins produced by both Pfizer and Moderna mRNA preparations not only contribute significantly to the immune response, but also play a central role in the inflammatory processes that lead to heart damage. The study carefully examined the behavior of spike proteins in human heart cells (cardiomyocytes) by transfecting them with the mRNA from the Pfizer and Moderna mRNA injections.

This allowed the researchers to follow the translation, cleavage and aggregation of spike protein monomers in human cells, as well as the formation of molecular clusters associated with cellular stress and inflammation.

Using advanced techniques to analyze the behavior of the spike proteins in various human cell lines, including HEK-293 and HeLa cells, the researchers were able to observe the specific aggregation pattern that occurred specifically in heart cells.

The researchers were able to demonstrate that the aggregation of spike proteins plays a direct role in the development of heart damage.

The study found that both the Pfizer and Moderna vaccines triggered the production of two types of spike protein monomers. The spike protein monomers are the very components that are supposed to trigger an immune response.

When the monomers entered the cells, they were cleaved by an enzyme called furin, creating the S1 subunit, which is central to immune activation.

The team discovered that these spike proteins aggregated into large, sticky clumps within a few hours of "vaccination", particularly in human heart cells.

These protein aggregates did not form randomly, but formed in a very consistent manner.

What was particularly striking was that the clumping occurred in a way that caused oxidative stress, inhibited cell growth and, most importantly, triggered an inflammatory response.

All of these reactions are common signs of myocarditis, a disease in which the heart becomes inflamed.

One of the most worrying aspects of the research was that, unlike other cell types, only the S1 subunit of the spike protein was released into the environment, while the sticky aggregates remained trapped inside the heart cells.

The study makes an important contribution to the growing body of evidence suggesting that aggregation of spike proteins in heart cells may be a key mechanism for severe cases of myocarditis and other heart problems following mRNA 'vaccination'.

The research raises the question of whether the full range of potential side effects of mRNA injections has been adequately studied and highlights the need for further investigation into the fate of spike proteins in the body.

Summary

The trimeric spike protein (S) on the envelope of the SARS-CoV-2 virus is the primary target structure for currently approved corona vaccines. For this reason, the two mRNA-based corona vaccines Comirnaty (BNT162b2, Pfizer/BioNTech) and Spikevax (mRNA-1273, Moderna) first induce the production of a spike monomer in body cells. After enzymatic cleavage by the endoprotease furin, two S-subunits are formed, which are intended to trigger the desired immune response after secretion. Based on this concept, a preventive measure against symptomatic SARS-CoV-2 infections was available within one year after the outbreak of the pandemic. mRNA-based vaccines have proven to be highly effective in reducing severe disease and mortality. However, both the virus itself and mRNA vaccines have been associated with cardiac symptoms, usually classified as myocarditis, pericarditis or a combination thereof, depending on the clinical presentation. Although vaccine-induced myocarditis remains a rare side effect, recent long-term studies have raised questions about its long-term effects. To better understand the molecular mechanisms potentially involved in vaccine-associated cardiac side effects, we investigated the translation and proteolytic processing of the encoded spike monomers in human AC16 cardiomyocytes and (for comparative purposes) in HEK-293 and HeLa cells. In all three cell types, both BNT162b2 and mRNA-1273 produced two monomer translation products of different sizes, from which an S1 subunit was formed after enzymatic cleavage. However, the number of S2 subunits identified varied between two and four depending on the cell line and mRNA used. Within a few hours, covalently bound high molecular weight complexes were formed from the spike monomers and their subunits. The arrangement of these complexes always followed a consistent pattern in each cell type. In AC16 cardiomyocytes in particular, the various spike protein derivatives not only impaired cell proliferation but also induced a proinflammatory response and oxidative stress. Only the secreted S1 subunit was detected as an immunogen in the supernatant in all three cell lines. Our results show that mRNA-based corona vaccines form numerous off-target products after translation of the encoded spike monomers. These off-target products could be responsible for both acute vaccination reactions and long-term side effects.

The two German pathologists Prof. Walter Lang and the late Prof. Arne Burkhardt did pioneering work in the discovery of inoculation spikes in tissues and especially in the heart. They also proved that the inoculation spikes can cause damage to elastic ligaments throughout the body, including consequential damage such as the bursting of arteries near the heart. TKP has published a study on this in advance and interviewed Prof. Walter Lang in detail.