

The art in medicine. Jobs with electrical risk and pandemic

El arte en medicina. Trabajos con riesgo eléctrico y pandemia

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Abstract

This article presents a reflection about the risk by exposure to electricity for workers who work at height. This collective of workers –who are considered essential and whose activity requires a specific set of physical skills and adequacies– are now exposed to the added risks of the COVID-19 pandemic.

The consequences of work related accidents or injuries also implicate their families, and this is reflected in Francisca Lita's painting, which opens a door towards present and future hope, showing her belief that the COVID-19 virus will eventually be controlled.

Resumen

Este artículo reflexiona sobre el riesgo por exposición a la corriente eléctrica de trabajadores en alturas al que se añade el miedo por la pandemia en este grupo de trabajadores considerados esenciales y cuya actividad requiere de su presencia física.

Las consecuencias por accidentes o lesiones derivadas de su actividad implican también a sus familias y se refleja en la pintura de Francisca Lita, quien deja abierta la puerta a la esperanza en un control de la enfermedad por COVID-19 y refleja una esperanza presente y futura.

Introduction

Exposure to risk is part of everyone's daily work. However, the current preventive legislation in industrialised countries seeks to have those risks reduced, by applying protective measures at both individual and collective levels¹.

Essential workers such as those who carry out power cable maintenance have seen their working-at-height risk linked to the current risk of becoming infected by the COVID-19 virus.

In Spain, the preventive legislation establishes that working-at-height tasks must be performed by qualified workers, following previously established protocols. Such protocols, if their complexity requires it, need to be rehearsed on stable ground and adjusted to the necessary requirements of the situation. Jobs that are to be carried out in locations where communication may be hampered – due to geographical reasons, quarantining or other circumstances -, must be performed in the presence of at least two first aid trained workers².

These activities demand a high degree of specialisation, being performed by highly trained workers, using the appropriate machinery and tools³.

The risks of working with exposure to electricity

Jobs in contact with electricity carry a very high occupational risk. Death following electrocution is mostly the consequence of ventricular fibrillation and asphyxia, and burns are the most frequent consequences of non-fatal accidents.

The severity of the injuries sustained by these workers depends on a variety of factors that are linked to the characteristics of the electric current (voltage and amperage), duration and type of contact and the resistance of the human body.

Mortality rates of electrical risk

The results are different depending on the country and the working sector.

In Saudi Arabia, data from 2020 shows that the most common accidents and injuries occurred in the construction sector, and the most frequent causes were falls from height (>80%) and electrocutions (>60%)⁴. In Italy, between 2002-2016, 18,9% of fatal occupational

injuries were caused by a form of dangerous energy or process – mechanical, thermal, electrical or chemical in small construction and agricultural businesses⁵. In Spain, data from 2015 registered 2.486 accidents, of which 11 had fatal consequences, caused by contact with electricity during working hours⁶.

Work during the pandemic

The COVID-19 pandemic has initiated a change in the life of workers around the world, but many of these workers were marked as essential and therefore had to continue their activities. Amongst them are those working with electricity. It was then necessary to adapt the working procedures, in order for the workers to stay apart as much as possible (travelling in separate vehicles, maintaining social distancing at all times, no access to changing rooms, eating restrictions at the workplace, etc.), which led to anxiety and fear of becoming infected by the virus. All these measures had an impact on the workers' job, home and health. Surveys are currently being conducted in order to discover and understand the real implications this unprecedented pandemic has had in people's work, private lives and health⁷.

The electric risk, painted

Francisca Lita's image shows the shared work of two colleagues working on a power cable, with the threat and risk of exposure to electricity stretching it's hand towards them - and the tears of suffering of their loved ones, conscious of the risks and awaiting their return.

The painting shows two clear sides, subtly separated by an electric post. On one side, the workers carry out their daily job, with their routines and their risks; on the other side, as if being part of a special universe, the pandemic risk is shown – present in society and added

as a complementary risk to the workers usual activities, becoming part of their routines.

The pandemic risk side is shown with greater clarity and the tree flowers express the hope of a promising future where the disease will be controlled.

The security straps that keep the workers attached to each other, as well as the electrical structures, allude to the pandemic too. They show that, for those essential workers who are carrying out vital tasks for the rest of society, the risk is present in all their activities.

The figures of the two workers are not clear, but actually imprecise, reflecting their souls, feelings, fears and hesitations, which make them blurry as they feel the threatening risks. The figure of the loved ones and their tears are drawn with great precision and are the central focus of this symbolic composition, gathering the fears of the workers' relatives who long for them to come back safe: without having been in contact with the virus and having finished the work free of accidents or injuries.

Conflict of interest

Authors do not have any conflict of interest to declare.



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