# Non-invasive ARC-EX therapy shows promising results in spinal cord injury treatment



A groundbreaking non-invasive treatment for spinal cord injuries has demonstrated significant benefits, according to a study published in the journal Nature Medicine. The therapy, known as ARC-EX, entails programmed electrical stimulation of the spinal cord and was found to aid functional recovery in patients. Conducted over two years by NHSGGC, the study included five patients who experienced improvements in upper limb and hand function, blood pressure, temperature control, and bladder and bowel function.

Dr. Mariel Purcell, leading the Up-LIFT study at Queen Elizabeth national spinal injuries unit in Glasgow, highlighted the potential of ARC-EX for both chronic and acute patients. One patient, writer Melanie Reid, reported enhanced utility and confidence in her hands following the therapy.

The international trial also included participants from universities in Seattle and Colorado. Patients saw improvements in muscle strength, control, and sensation in their hands and arms. The Arc-Ex device, worn externally with electrodes placed near the spinal cord, helped transmit signals between the brain and paralyzed body parts, benefiting patients with intact nerves crossing the injury site.

Dr. Gregoire Courtine, a co-founder of ONWARD Medical which ran the study, noted that while not a cure, the therapy marks significant progress in spinal injury recovery. The device is expected to receive US approval this year, with European approval anticipated soon after.