

Treatment of idiopathic facial paralysis (Bell's Palsy) and secondary facial paralysis with extracellular vesicles: A pilot safety study

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Paralysis of the facial nerve (CN VII) is one of the most debilitating issues that any patient can encounter. Bell's palsy is the most commonly seen mononeuropathy. Although usually self-limited, symptomatology can persist for decades in persistent cases. Objective and design We sought to determine a safe new treatment could be developed to restore facial nerve function using extracellular vesicles (EVs) in patients who have been unable to return to normal under a variety of conditions. We performed a pilot safety study of 7 patients with idiopathic and secondary facial paralysis to determine if any functional restoration was possible. Each patient had symptomatology for varying periods, with diverse House-Brackmann scores. They were all treated with the same protocol of extracellular vesicles (EVs) over 4 weeks and were evaluated both before and after treatment. All patients in this study received treatment by their private physicians before entering the study. A record review was completed, with independent physical examinations. House-Brackmann scores and Facial Disability Indices were obtained prior to, and after completing the study. EVs were injected into the area of the main trunk of the facial nerve on the affected side, and an intravenous drip of EVs on visits during weeks 1, 2, and 4. All patients enrolled in the study improved with this treatment protocol. After the second week of treatment, we saw a progression of independent motion of the affected eyelid, brow motion, and commissure. Although all patients began at different House-Brackman starting points, almost all ended at the same endpoint on the scale over the same period of time – four weeks. No adverse effects were encountered. The path mechanism is still unknown. But it appears that the mechanism is reversible. At last, these patients can have hope.

Biography

Paul Dreschnack is a Plastic Surgeon in New York City interested in advanced cellular medicine research. Trained in reconstructive microsurgery and hand surgery, he authors papers on stem cell research and extracellular vesicle medicine research.

Received: June 13, 2024; **Accepted:** June 14, 2024; **Published:** December 13, 2024
