Conventional Nerve Repair Wisdom Defied By Clinical Study

(PRNewswire-USNewswire) In the first-ever multicenter clinical trial on processed nerve allograft, researchers from The Buncke Clinic in San Francisco found that treatment of severed peripheral nerve with processed nerve allograft showed meaningful recovery in 87 percent of patients, comparing favorably to traditional nerve repair (autograft nerve). The study findings were published in the January 2012 issue of *Microsurgery*.

"It is commonly accepted among surgeons who do peripheral nerve repair that success of surgery depends on the type of injury, length of nerve discontinuity, the patient's age and the type of nerve. Our study findings show that with processed nerve allograft, patients can have meaningful recovery regardless of these factors," said Darrell Brooks, M.D., plastic surgeon, of The Buncke Clinic and the study's principal investigator. "Based on our findings, the information I use to counsel my patients prior to surgery will change - this is a paradigm shift."

Believed to be the largest-of-its-kind in peripheral nerve repair, the study found processed nerve allografts are a safe and effective alternative for nerve reconstructions. This observational study includes data collected from 12 collaborative institutions with 25 surgeons, each using their own standard of care, preferred surgical techniques, rehabilitation plan and follow-up. A total of 132 individual nerve injuries were treated using the processed nerve allograft.

Findings in the study's subset analysis show nerve allograft is effective:

- Across all types of nerves where 89 percent of sensory nerves, 86 percent of motor nerves and 77 percent of the traditionally more difficult to treat mixed nerves achieved meaningful recovery.
- In both short and long nerve gaps, with meaningful recovery achieved in 100 percent of nerve gaps less than 15 mm, 76 percent of nerve gaps 15-29 mm and 91 percent of nerve gaps 30-50 mm.
- For adults of any age, with meaningful recovery achieved in those ages 18-29 (70 percent), 30-49 (88 percent) and 50+ (93 percent).
- No graft-related adverse experiences were reported, and no reported implant complications, tissue rejections or adverse events related to the use of processed nerve allografts.

Subset and additional data analysis from this study will also be presented at three medical meetings in Las Vegas this week, the American Association for Hand Surgery Annual Meeting, the American Society for Peripheral Nerve Annual Meeting and the American Societyfor Reconstructive Microsurgery Annual Meeting.

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