

NeuroMetrix

Research Studies Bibliography

October 2008

Peer Reviewed Journal Publications

1. Kong X, Bansal P, Megerian JT, Gozani SN. Peroneal F-wave characteristics under submaximal stimulation. *Neurol Neurophysiol Neurosci.* 2006;1.
 - Demonstrates that F-wave latency and duration parameters acquired with stimulus intensity lower than supramaximal are statistically equivalent to those obtained under supramaximal stimulation. This finding suggests that F-wave studies could be carried out with reduced patient discomfort during the exam without compromising clinical values.
2. Timpson WL, Kong X, Hamlet WP, Gross P, Gozani SN. Time-dependent changes in median nerve sensory amplitude after local anesthetic administration and tourniquet application. *Am J Orthop.* 2006;35:515-9.
 - Demonstrates that intraoperative monitoring (with NC-stat), using the amplitude of the median sensory nerve response, is viable under CTR conditions.
3. Gozani SN, Kong X, Fisher MA. Factors influencing F-wave latency detection of lumbosacral root lesions using a detection theory based model. *Clin Neurophysiol.* 2006;117(7):1449-57.
 - Shows that NC-stat lumbosacral radiculopathy detection method is scientifically rigorous and clarifies why limited F-wave approaches are inadequate for detection of radiculopathy.

Conference Papers, Abstracts and Presentations

General Topics

1. Krishnamachari S, Tracey BH, Iyer D. Detection and Classification of Motor Nerve Late-wave Activity. *Conf Proc IEEE Eng Med Biol Soc.* 2007;1:1441-1444.
2. Han Z, Kong X. F-Wave Decomposition for Time of Arrival Profile Estimation. *Conf Proc IEEE Eng Med Biol Soc.* 2007;1:698-700.
3. Megerian JT, Kong X, Gozani SN. Relative diagnostic utility of F-wave latency parameters. Presented at the AANEM Annual Scientific Meeting, Washington, DC, October 11-14, 2006.
4. Kong X, Lesser EA, Megerian JT, Gozani SN. Diagnostic utility of F-wave latency parameters in LSR and polyneuropathy. Presented at the AANEM Annual Scientific Meeting, Washington, DC, October 11-14, 2006.
5. Tracey BH, Krishnamachari S. Automated removal of stimulus artifact in nerve conduction studies. *Conf Proc IEEE Eng Med Biol Soc.* 2006;1:6360-3.
6. Krishnamachari S, Kong X. Enhanced estimation of motor unit number and distribution using linear least squares modeling. *Proceedings of the 27th Annual International Conference of the IEEE Engineering In Medicine and Biology Society, Shanghai, China, September 1-4, 2005;2:1118-9.*
7. Kong X, Krishnamachari S. A computational model for CMAP and F-wave signal generation. *Proceedings of the 27th Conference of the IEEE Engineering In Medicine and Biology Society, 2005;4:3660-3.*

8. Gozani SN. A model of lumbosacral nerve root lesion detection by F-wave latencies. Presented at the Annual Meeting of the American Academy of Clinical Neurophysiology, Scottsdale, AZ, February 25-26, 2005.
9. Kong X, Bansal P, Megerian JT, Gozani SN. Peroneal F-wave characteristics under submaximal stimulation. Presented at the Annual Meeting of the American Academy of Clinical Neurophysiology, Scottsdale, AZ, February 25-26, 2005.
10. Bindra RR, Alexieva C, Thompson M, Hare P. Effect of repetitive motion on conduction velocity of the median nerve across the carpal tunnel. Presented at the 9th Congress of the International Federation of Societies for Surgery of the Hand, Budapest, June 12-17, 2004.
11. Kong X. Removing periodic noise in F-wave: A dynamic notch filter approach. Proceedings of the 25th Annual International Conference of the IEEE Engineering In Medicine and Biology Society, Cancun, Mexico, September 2003.
12. Gozani SN, Kong X. Distally elicited H-reflexes recorded from plantar foot muscles. Presented at the Annual Meeting of the American Academy of Clinical Neurophysiology, Boston, MA, 2003.
13. Kong X, Wells M, Gozani SN. A-Wave Characteristics in Asymptomatic Adult Subjects. Presented at the Annual Meeting of the American Academy of Neurology, Honolulu, HI, March 29 – April 5, 2003.

Diabetes Topics

14. Kong X, Lesser EA, Gozani SN. Comparison of Median Nerve Conduction in Patients Evaluated for CTS and DPN. Abstract at the 68th Annual Meeting of the American Diabetes Association, San Francisco, CA, June 6-10, 2008.
15. Daniello GA, Kong X, Gozani SN. Frequency of Repeat Nerve Conduction Studies for Assessment of DPN. Abstract at the 68th Annual Meeting of the American Diabetes Association, San Francisco, CA, June 6-10, 2008.
16. Kong X, Gozani SN, Megerian JT. Abnormality rate comparison of median and sural NCS for patients tested for DPN. Presented at the 66th Annual Meeting of the American Diabetes Association, Washington DC, June 9-13, 2006.
17. Gozani SN, Megerian JT. Risk factors for nerve conduction confirmed diabetic peripheral neuropathy in the community clinical setting. A study of 100 patients. Presented at the 64th Annual Meeting of the American Diabetes Association, Orlando, FL, June 4-8, 2004.