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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

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UREMIC NEUROPATHY AND ADEQUACY OF DIALYSIS

Thesis

*Submitted in partial fulfillment of Master Degree in
Internal Medicine*

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ABSTRACT

Nervous system dysfunction is common among renal failure patients and contributes significantly to their overall morbidity and mortality. Neurological manifestations of uremia were categorized into both central and peripheral disorders. Uremic polyneuropathy is a distal, symmetrical, and mixed sensor-motor neuropathy. The purpose of this study was to confirm the presence uremic neuropathy in hemodialysis patients and its relation to dialysis adequacy and duration of the dialysis. This study was included 30 hemodialysis patients who were divided into 3 groups, each group included 10 patients with duration of dialysis as follow; less than 5 years in group 1, from 5 to 10 years in group 2 and more than 10 years in group 3. In addition to 15 normal volunteers who were age and sex matched. All patients underwent careful neurological examination and electrophysiological study which is a sensitive test used to diagnose uremic neuropathy. Also dialysis adequacy was measured using $spKt/V$ and $eqKt/V$. The results revealed the presence of uremic neuropathy in 57% of patients both clinically and electrophysiologically. However, all patients showed electrophysiological abnormalities. Results showed also that mean $spKt/V$ was 1.2 ± 0.2 and mean $eqKt/V$ was 0.94 ± 0.15 which lies within the recommended range of NKF-DOQI, 2002. No significant correlation was found between electrophysiological studies and both type of Kt/V ($P > 0.05$). Also no significant correlation was found between electrophysiological studies and the dialysis duration ($p > 0.05$).

Key words: Uremic Neuropathy- Electrophysiological Studies- Hemodialysis Adequacy.

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List of Abbreviations

- Amp**= Amplitude.
- ATP**= Adenosine triphosphatase.
- BUN**= Blood urea nitrogen.
- CNS**= Central nervous system.
- CRF**=Chronic renal failure.
- CV**= Conduction velocity.
- CVD**= Cardiovascular disease.
- DDS**= Dialysis disequilibrium syndrome.
- DFO**= Deferoxamine.
- DOQI**= Dialysis Outcome Quality Initiative.
- EPO**= Erythropoietin.
- GFR**= Glomerular filtration rate.
- GIT**= Gastrointestinal tract.
- HD**= Hemodialysis.
- HDF** = Hemodiafiltration.
- LCP** = Left common peroneal nerve.
- LM** = Left median nerve.
- LMP** = Left medial planter nerve.
- LU** = Left ulnar nerve.
- MW** = Molecular weight.
- NCV** = Nerve conduction velocity.
- NKF** = National Kidney Foundation.
- PTH** = Parathyroid hormone.
- RPT**= Right posterior tibial nerve.
- RU** = Right ulnar nerve.
- USRD**= United States Renal Data System.

Introduction