THESES

ELECTRONEUROMYOGRAPHY IN PRIMARY HYPOTHYROIDISM (Abstract)*. **Thesis. Rio de Janeiro, 1994.**

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There has been few controlled studies on eclectroneuromyography (ENMG) changes in hypothyroidism. The objectives of the present study were to investigate the frequency of ENMG abnormalities in hypothyroidism and correlate them with neurological signs and symptoms and muscle enzyme levels; and to compare latency, amplitude and nerve conduction velocity from selected nerves with controls. Sixteen patients (mean age 43 years) suffering from primary hypothyroidism were submitted to anamnesis, neurological examination, ENMG and muscle enzyme levels determination (CPK, CPK-MB, LDH, aldolase) before treatment. ENMG was composed by: latency, amplitude and conduction velocity determination of peroneal, tibial, median, ulnar and radial nerves bilaterally; determination of minimal F wave latency of tibial and ulnar nerves; comparison of latency and sensory conduction velocity of median and ulnar nerves after stimulus of the 4th finger; determination of median palm-wrist conduction velocity; H reflex study of tibial nerves; and EMG study of at least three muscles. Peripheral neuropathy was considered when five or more values were found abnormal in at least three different nerves. Some selected mean values of neuroconduction were compared to a group of 54 healthy individuals (mean age 39 years) by Student T test for a significance level of 5%.

Patients included were found to have: low T3, and T4, serum levels with high TSH; normal T3, low T4, and high TSH; and finally normal T3, T4, and TSH levels presenting abnormal elevation after TRH test (subclinical involvement). They were excluded whenever suspected another cause of neuromuscular disorder.

ENMG abnormalities were found in 87.5% of cases but only 62.5 of them were considered as myopathy (46.6%) or carpal tunnel syndrome (43.7%). Some have both diagnosis (25%). All the cases considered as myopathic by ENMG had related symptoms but abnormal neurological examination in only 28.57% and high muscle enzyme levels in 42.85%.

None was considered as polyneuropathy although parestesias and deep hyporeflexia were noted.

In 71.42% of cases considered as carpal tunnel syndrome by ENMG, related symptoms and signs were found. In 14.28% of cases the electrophysiological diagnosis was subclinic.

The patients showed a significant tendency of nerve conduction slowness as compared with controls and this extended out of median nerve territory, explaining perhaps peripheral symptoms even without outstanding polyneuropathy.

The findings are in accordance with the literature reviewed.

The high incidence of ENMG abnormalities and its high clinical correlation, and also, the demonstration of the slowness of nerve conduction, objectivate nerve and muscle damage in this condition and possibly justify the inclusion of this endocrinopathy in the differential diagnosis of acquired myopathies and neuropathies, entrapment types included, mostly when associated, resulting in efficient treatment.

KEY WORDS: **electroneuromyography, primary hypothyroidism, myopathy, peripheral neuropathy.**

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CORREÇÃO. Na Seção **THESES** do número Setembro-1995 [*Arq Neuropsiquiatr 1995, 53(3-A):526-532*] houve um engano na transcrição do *Abstract* da Tese "Electroneuromyography in primary hypothyroidism" da autoria de Márcia Waddington Cruz (pg 526, segunda linha do rodapé). Onde se lê "Faculdade de Medicina da Universidade do Rio de Janeiro", leia-se "Faculdade de Medicina da Universidade **Federal** do Rio de Janeiro". Além disso, a Autora solicita que conste o nome da instituição na qual foi realizada a tese, o HOSPITAL UNIVERSITÁRIO CLEMENTINO FRAGA FILHO.