

CLINICO-NEUROLOGIC, ELECTRONEUROMYOGRAPHIC AND PATHOLOGIC ASPECTS OF THE PREDOMINANTLY SOMATO-SENSITIVE PERIPHERAL NEUROPATHY ASSOCIATED TO CHRONIC CHAGAS' DISEASE (Abstract). Thesis. Ribeirão Preto, 1995.

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Sixty-six volunteers, of which 33 were asymptomatic Chagasics experiencing chronic stage of the disease and 33 who had no Chagas' disease were evaluated. The aim of this study was to verify whether asymptomatic Chagasics whose disease was newly detected showed clinic or subclinic compromise of predominantly somato-sensitive components of peripheral nervous system.

Clinical evaluation of the 66 volunteers were normal and only two Chagasics with cardiac-digestive form showed difficulty in swallowing solid food (sporadic episodes of dysphagia).

Neurological evaluation of the 33 Chagasics showed that 14 (42.4%) showed no symptoms and neurologic examination was in normal ranges; 15 (45.5%) showed symptoms (paresthesia, hyperhidrosis of hands and feet, and cramps) and neurologic examinations were in normal ranges; 3 (9.1%) showed no symptoms but diminished Achilles' reflex; and one subject (3%) showed paresthesia at right hand and tactile and painful hypoesthesia of 1st. and 2nd. fingers.

Of 33 volunteers of control group, 9 (27.3%) presented sporadic symptoms (pain at lower limbs, hyperhidrosis of hands and feet, tingling of feet). All neurologic examinations were in normal ranges.

Chagasics presented vibration time lower than controls, which indicates mild compromise of vibratory sensitivity.

Electroneuromyographies demonstrated that 4 (12.1%) presented reduction of sensitive action potential (SAP) amplitudes of sural nerves. Sensitive conduction velocity of median nerves was reduced in 5 (15.1%), with no changes in SAP. H-reflexes were not obtained in 3 (9.1%). Electromyographies evidenced that in 19 (57.6%) there were chronic denervation signs in proximal and distal muscles of lower and upper limbs, predominantly in the latter.

Electroneurographic evaluations of control group were in normal ranges in 14 (92.9%). Electromyography showed signs of chronic denervation in an upper limb and in a lower limb in one patient (7.1%).

Sural nerve biopsy specimens were obtained in 8 (24.2%) Chagasics who presented reduction of SAP amplitude of mentioned nerve and/or reduction of vibratory stimulus perception time. Changes in sural nerve biopsy specimens evidenced mild neuropathy of axonal character with evidences of regeneration. Findings at fiber teasing showed signs of regeneration, with no abnormal rate of active lesions.

**KEY WORDS:** Chagas' disease chronic stage, somato-sensitive peripheral neuropathy, neurologic examination, electroneuromyography, sural nerve biopsy.

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