

Amyotrophic Lateral Sclerosis

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Recent advances in amyotrophic lateral sclerosis.

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The mechanisms by which mutations of the SOD1 gene cause selective motor neuron death remain uncertain, although interest continues to focus on the role of peroxynitrite, altered peroxidase activity of mutant SOD1, changes in intracellular copper homeostasis, protein aggregation, and changes in the function of glutamate transporters leading to excitotoxicity. Neurofilaments and peripherin appear to play some part in motor neuron degeneration, and amyotrophic lateral sclerosis is occasionally associated with mutations of the neurofilament heavy chain gene. Linkage to several chromosomal loci has been established for other forms of familial amyotrophic lateral sclerosis, but no new genes have been identified. In the clinical field, interest has been shown in the population incidence and prevalence of amyotrophic lateral sclerosis and the clinical variants that cause diagnostic confusion. Transcranial magnetic stimulation has been used to detect upper motor neuron damage and to explore cortical excitability in amyotrophic lateral sclerosis, and magnetic resonance imaging including proton magnetic resonance spectroscopy and diffusion weighted imaging also provide useful information on the upper motor neuron lesion. Aspects of care including assisted ventilation, nutrition, and patient autonomy are addressed, and underlying these themes is the requirement to measure quality of life with a new disease-specific instrument. Progress has been made in developing practice parameters. Riluzole remains the only drug to slow disease progression, although interventions such as non-invasive ventilation and gastrostomy also extend survival.

Acupunct Electrother Res. 1992;17(2):107-48.

Common factors contributing to intractable pain and medical problems with insufficient drug uptake in areas to be treated, and their pathogenesis and treatment: Part I. Combined use of medication with acupuncture, (+) Qi gong energy-stored material, soft laser or electrical stimulation.

[Omura Y](#), [Losco BM](#), [Omura AK](#), [Takeshige C](#), [Hisamitsu T](#), [Shimotsuura Y](#), [Yamamoto S](#), [Ishikawa H](#), [Muteki T](#), [Nakajima H](#), et al.

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Most frequently encountered causes of intractable pain and intractable medical problems, including headache, post-herpetic neuralgia, tinnitus with hearing difficulty, brachial essential hypertension, cephalic hypertension and hypotension, arrhythmia, stroke, osteoarthritis, Minamata disease, Alzheimer's disease and neuromuscular problems, such as Amyotrophic Lateral Sclerosis, and cancer are often found to be due to co-existence of 1) viral or bacterial infection, 2) localized microcirculatory disturbances, 3) localized deposits of heavy metals, such as lead or mercury, in affected areas of the body, 4) with or without additional harmful environmental electro-magnetic or electric fields from household electrical devices in close vicinity, which create microcirculatory disturbances and reduced acetylcholine. The main reason why medications known to be effective prove ineffective with intractable medical problems, the authors found, is that even effective medications often cannot reach these affected areas in sufficient therapeutic doses, even though the medications can reach the normal parts of the body and result in side effects when doses are excessive. These conditions are often difficult to treat or may be considered incurable in both Western and Oriental medicine. As solutions to these problems, the authors found some of the following methods can improve circulation and selectively enhance drug uptake: 1) Acupuncture, 2) Low pulse repetition rate electrical stimulation (1-2 pulses/second), 3) (+) Qi Gong energy, 4) Soft lasers using Ga-As diode laser or He-Ne gas laser, 5) Certain electro-magnetic fields or rapidly changing or moving electric or magnetic fields, 6) Heat or moxibustion, 7) Individually selected Calcium Channel Blockers, 8) Individually selected Oriental herb medicines known to reduce or eliminate circulatory disturbances. Each method has advantages and limitations and therefore the individually optimal method has to be selected. Applications of (+) Qi Gong energy stored paper or cloth every 4 hours, along with effective medications, were often found to be effective, as Qigongnized materials can often be used repeatedly, as long as they are not exposed to rapidly changing electric, magnetic or electro-magnetic fields. Application of (+) Qi Gong energy-stored paper or cloth, soft laser or changing electric field for 30-60 seconds on the area above the medulla oblongata, vertebral arteries or endocrine representation area at the tail of pancreas reduced or eliminated microcirculatory disturbances and enhanced drug uptake.(ABSTRACT TRUNCATED AT 400 WORDS)