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1: [Ann N Y Acad Sci.](#) 2004 Jun;1019:572-6.

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**Cirrhosis progression as a model of accelerated senescence: affecting the biological aging clock by a breakthrough biophysical methodology.**

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To test new treatment modalities, a pilot study with a novel noninvasive biophysical methodology (Delta-S DVD) that can artificially exert a "decrease of entropy" through the patented electromagnetic-driven delivery of "energy clusters" was designed. This process has been modulated and integrated by the body as a "self" source to support the energy-dependent functional stores, thus modifying reparative into regenerative mechanisms of liver parenchyma. Seven long-standing hepatitis C virus-positive (Child A-B) cirrhosis patients with overt symptoms and portal hypertension and failure or side effects of antiviral drug treatment underwent 40-min sessions of Delta-S DVD daily for six months and were followed up monthly. At the end of the first month, rapid improvement of symptoms and a decrease of portal hypertension were noted. At the end of treatment, all patients showed either a complete (80%) or a partial (20%) regression of fatigue (FISK score), peripheral edema, pruritus, and palmar erythema. As observed, despite having stopped beta-blockers, F1 esophageal varices disappeared (60%), whereas F2 decreased to F1. The Doppler ultrasound aspect of partial (40%) or total (20%) atrophy was either reduced (60%) or reverted to normal (20%), and the respiratory dynamics of the portal vein improved (80%) or normalized (20%), whereas gross scarring nodules disappeared in 40% of cases. These promising data pave the way for an innovative physiopathological approach with extensive clinical applications.

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