

SELECTIVE SEROTONIN REUPTAKE INHIBITORS FOR STROKE RECOVERY

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Pharmacotherapy is commonly applied to stroke patients to prevent complications or enhance recovery. The aim of post stroke recovery treatments is to enhance structural and functional reorganization of the brain. The mechanism underlying CNS plasticity include unmasking of latent connections, axonal sprouting and synaptogenesis. Medications may boost that process and enable a patients to more actively contribute to the rehabilitation. Most clinical studies focus on interventions involving neurotransmitter modulation and aim to activate all areas that are functionally linked with the lesioned structures.

Drugs that blocked the reuptake of selective serotonin re-uptake(SSRI) caused increased activation of the motor cortex in healthy individuals during exercise. Several small clinical studies with SSRIs demonstrated clinical benefit on post stroke motor recovery. Most studies were done with fluoxetine. Meta-analysis showed positive effect of fluoxetine on disability at the end of treatment, however there was substantial heterogeneity among trials. There are few ongoing randomized trials which should give provide evidence to support (or refute) the routine use of SSRI for patients early after stroke.