Selective Serotonin Reuptake Inhibitors May Be Helpful in Most Patients With Stroke

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The clinical presentation of this patient with no past history of stroke shows a moderate to severe neurological deficit associating aphasia and hemiparesis (National Institutes of Health Stroke Scale, 14). Fugl-Meyer Motor Scale score of 35 indicates that some movements with his right side are possible but that he is probably bedridden and unable to walk. One can find several arguments to propose starting this patient on a selective serotonin reuptake inhibitor (SSRI) such as fluoxetine. Small clinical trials in patients with ischemic stroke have shown that SSRIs can induce active changes in cortical excitability. Recently, the Fluoxetine for motor recovery after acute ischemic stroke (FLAME) trial demonstrated a positive action of a 3-month fluoxetine treatment against placebo in a selected population of 113 nondepressed patients with ischemic stroke. In this study, patients had severe motor deficit (mean Fugl-Meyer Motor Scale 13.4 and 17.1 in the placebo and fluoxetine groups, respectively; mean National Institutes of Health Stroke Scale 13.1 and 12.8 in the placebo and fluoxetine groups, respectively) and were treated within the first days after the stroke onset. Fugl-Meyer Motor Scale improvement at Day 90 was significantly greater in the fluoxetine group (adjusted mean 34.0 points; 95% CI, 29.7–38.4) than in the placebo group (24.3 points; 95% CI, 19.9–28.7; \( P=0.003 \)). The drug was well tolerated and all the patients were included in a rehabilitation program. The clinical characteristics of our patient are close to the population of the FLAME trial and he can benefit from the treatment. We do not know if SSRIs/fluoxetine improve recovery from aphasia but there are strong arguments for a positive action on recovery of motor function. It is not mentioned if the patient was depressed or had a history of depression, but even in that case, SSRI can be given because it has been strongly suggested that SSRIs can prevent depression and improve recovery in poststroke depressed patients. The duration of the treatment should be 3 months because we do not know if longer treatment is needed. The permanency of the effect was not demonstrated in the FLAME trial but was suspected in other studies.

Should early intensive physical and speech therapy be promoted within the first 48 to 72 hours after stroke onset to accelerate his recovery?

Very early mobilization and physical therapy are performed in some stroke units and are recommended in acute stroke clinical guidelines. However, it is unclear whether very early mobilization (started within 48 hours of stroke) independently improves outcome. In a recent review, insufficient evidence was found to support or refute the efficacy of routine very early mobilization after stroke compared with conventional care. Moreover, the optimal physical therapy dose in acute stroke care is unknown. In a recent study, the authors hypothesized that physical therapy would be significantly different between treatment arms in a trial of very early and more frequent mobilization and that immobility-related adverse events would be associated with therapy dose. The therapy schedule was markedly different in the intervention arm, but whether this schedule reduces complications or improves outcome is unknown. So we have very little argument to propose early physical therapy in our patient. However, I think that it should be proposed to our patient because a fluoxetine recovery effect has been demonstrated when the drug was prescribed in association with physical therapy. Physical therapy is likely a condition for the drug to be active.

There is a considerable spontaneous recovery in aphasia, but impaired communication ability remains a great problem. Communication difficulties are an impediment to rehabilitation. Early treatment of the language deficits leading to increased communication ability would improve rehabilitation. A recent review provides some evidence of the effectiveness of speech therapy for people with aphasia after stroke in terms of improved functional communication and receptive and expressive language. However, the potential benefits of intensive speech therapy over conventional speech therapy remain difficult to assess. In a subsequent study, very early intensive speech therapy with a language enrichment therapy program over 21 days had no effect on the degree of
aphasia in unselected patients with acute aphasic stroke but resulted in a significant improvement as compared with controls in aphasic patients with more fluency. I think that speech therapy should be proposed early in our patient if some fluency or naming capacity is present.

Should every patient with stroke be on SSRIs? It is far too early to say that every patient with stroke should be on a SSRI because objective data are lacking and the potential action of SSRIs in stroke recovery needs to be confirmed by other trials. However, several arguments should be considered for the development of new trials and the prescription of SSRIs. First, it is a new nonvascular neuronal target different and complementary from the classical arterial recanalization and reperfusion goal of the very first hours of ischemic stroke. Second, it concerns potentially all the patients after an ischemic stroke regardless of a limited time window. Third, there is no need to major facilities for SSRIs to be given and patients from emerging countries all over the world could benefit from it in a worldwide stroke treatment policy. Fourth, the cost would be far lower than other treatment options. Finally, the adverse effects are well known because SSRIs are not new unknown drugs and they appear compatible with the characteristics of our population of patients. I think the risk–benefit ratio is already in favor of SSRI prescription soon after ischemic strokes despite the need for more supportive scientific evidence.

Disclosures

None.

References


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