

## Should I prevent my patient from developing depression after stroke? What is the best available option?

Muhammad Affan,<sup>1</sup> Quratulain Shaikh,<sup>2</sup> Ayeesha Kamran Kamal<sup>3</sup>

### Why is the study important?

Post stroke depression is defined as depression occurring in patients with a recent stroke. It has been reported that around half to one third of patients who had a stroke suffer from this mood disorder. Depression especially in patients of stroke affects functional and daily activities and is associated with increased morbidity and mortality. The primary aim of this study was to assess the role and effectiveness of Escitalopram and problem solving therapy in the prevention of post stroke depression.

### Who were the participants? What was the intervention?

This randomized clinical trial was conducted on non-depressed acute stroke patients, recruited from 3 centers in United States. The subjects were divided into three groups, two were double blinded and received Escitalopram or placebo and one was non-blinded and underwent therapy with problem solving techniques. The main outcome measure of the study was the assessment of major and minor depression in all three groups using DSM IV and Hamilton-17 Depression Rating Scale criteria of depression on follow up visits at 3, 6, 9 and 12 months.

### What were the findings?

Subjects in placebo group were significantly more likely to get depression compared to those who got Escitalopram

(22.4% vs 8.5%; HR 4.5; 95% CI 2.4-8.2; P<.001) and problem solving therapy (22.4% vs 11.9%; HR 2.2; 95% CI 1.4-3.5; P<0.001). The difference between placebo and problem solving therapy was found out to be insignificant (30.5% vs 34.5%; HR 1.1; 95% CI 0.8-1.5; P=0.51).

### What were the conclusions?

The results of this study suggest that Escitalopram was associated with a decreased likelihood of getting depression after stroke. Although statistically insignificant the study showed that 7.2 patients with stroke would be needed to be treated with Escitalopram and 9.2 patients with problem solving therapy to prevent one case of post stroke depression.

### How can this study affect our clinical practice?

Prevalence of post stroke depression ranges from 30-40% in our population. Early identification and prompt treatment with drugs like Escitalopram may prove beneficial in decreasing depression related morbidity and mortality in patients who had a stroke. However the cost effectiveness of medication is of great concern in our country and will be an added financial burden on the families. Further studies should be done for cost effectiveness of this measure on our population. The effectiveness of problem solving therapy in preventing post stroke depression is another viable option.

### Recommended Reading

1. Robinson RG, Jorge RE, Moser DJ, Acion L, Solodkin A, Small SL et al. Escitalopram and problem-solving therapy for prevention of poststroke depression: a randomized controlled trial. *JAMA* 2008; 299: 2391-400. doi: 10.1001/jama.299.20.2391.

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<sup>1</sup>Research Assistant, <sup>2</sup>Cerebrovascular Research Fellow, The International Cerebrovascular Translational Clinical Research Training Program, <sup>3</sup>Stroke Service, Aga Khan University, Karachi, Pakistan.

**Correspondence:** Ayeesha Kamran Kamal. Email: ayeesha.kamal@aku.edu