



The neuropsychiatry of stroke

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Stroke represents a major public health problem. It is the **third most common** cause of **death** in the UK and the **single most common** cause of severe **disability**. Every year, over **130,000 people** in the UK suffer a stroke and more than 250,000 people live with disabilities caused by stroke.

Post-stroke there is a high risk of developing neuropsychiatric complications and these will further impact on the physical functioning and quality of life of the patient. Recent studies have shown that the neuropsychiatric complications of stroke have a negative effect on recovery of motor function, social functioning and overall quality of life of the survivor. Neuropsychiatric presentations post-stroke include depression, anxiety, irritability, apathy, emotionalism, suicidality, mania, psychosis and cognitive impairment.

Depression is the most frequently occurring psychiatric disorder after a stroke, but it is often under-diagnosed. In-hospital depression is one of the strongest factors impairing recovery in activities of daily living over two years. Patients with depression have 50% higher mortality at one year compared to non-depressed patients. The relative risk of mortality when depression was present compared with no depression was 3.4. There have been at least five placebo-controlled randomised double-blind trials looking at the efficacy of single antidepressants in the treatment of post-stroke depression. Nortriptyline, trazodone, citalopram, sertraline and fluoxetine have all been demonstrated to be effective.

Suicide rates post-stroke are approximately doubled. The risk seems to increase initially following the stroke and then declines with time.

20-50% of patients manifest anxiety in the acute phase of stroke. However, the prevalence of anxiety drops at one year and three year follow up. Functional recovery post-stroke is negatively affected by the presence of generalised anxiety disorder. There are no systematic studies of the treatment of post-stroke anxiety.

Emotionalism has been described in a variety of neurological disorders including stroke. A specific link between the location of the lesion and the emergence of emotionalism has not yet been identified.

Post stroke mania is rare. There is no clear evidence in the published literature regarding the treatment of post-stroke mania.

Post-stroke psychosis is also rare. It has previously been reported following right-sided temporal-parietal lesions and has commonly been associated with some non-specific EEG changes or in some cases frank epilepsy.

Cognitive impairment post-stroke can be focal or global. Dementia after stroke is now increasingly recognised. In the Framingham study, the 10-year risk of post-stroke dementia was 19.3% for cases and dementia developed in 11% of controls.