

Psychopharmacology for the Clinician

Psychopharmacologie pratique

The information in this column is not intended as a definitive treatment strategy but as a suggested approach for clinicians treating patients with similar histories. Individual cases may vary and should be evaluated carefully before treatment is provided.

Pharmacological treatment of post-stroke pathological laughing and crying

A 60-year-old man with left-sided limb weakness after a stroke was referred for assessment and treatment of depression. The patient reported that, after his stroke 2 weeks ago, he has been crying "for no reason" several times a day. He described that the crying spells last several seconds and cannot be resisted. The patient denies depressed mood or symptoms consistent with a mood disorder. On examination, stereotyped paroxysms of crying lasting 5–10 seconds were noted during the interview, incongruent to any emotional themes discussed. The patient was diagnosed with pathological crying and was started on citalopram 10 mg orally at night. On follow-up, he reported that his crying spells stopped within days of initiating the selective serotonin reuptake inhibitor (SSRI) medication.

Pathological laughing and crying (PLC) is one of the most common post-stroke affective disorders. The cardinal feature of this disorder is a markedly lowered threshold for exhibiting affective behaviour (crying, laughing or both) that is out of proportion to underlying feelings of happiness or sadness. At an extreme, the expression of affect is completely incongruous to the reported underlying emotional experience. Pure pathological crying is by far the most common presentation, representing approximately 80% of cases of post-stroke PLC. Estimates of the

prevalence of PLC vary from 7% to up to 48.5% of stroke survivors, with a greater prevalence found in inpatient populations and during the acute post-stroke period.

Although it is important to consider the presence of a depressive episode in people who present with excessive emotionality, most people with PLC do not have a diagnosable mood disorder, and many do not manifest depressive symptoms at all.

The etiology of PLC is unknown. Converging lines of evidence suggest that monoaminergic neurotransmission is altered in those who develop PLC after a stroke.

Four double-blind, placebo-controlled treatment trials of antidepressant drugs in the treatment of PLC have been reported in the English literature. In pooled data of 93 people from these placebo-controlled trials of nortriptyline, fluoxetine, sertraline and citalopram, 96% of patients who received antidepressant medication demonstrated a greater than 50% reduction in the number of crying episodes at the end of the treatment trials, compared with 27.5% of patients who received placebo, yielding a number needed to treat (NNT) of 1.5. Antidepressants have been shown to reduce the frequency and severity of crying or laughing episodes after a stroke, often within days, rather than the weeks typically expected before antidepressant effects are seen. SSRIs should be regarded as the first-line choice when treating poststroke PLC, given the

greater tolerability of SSRIs and their lower propensity to have effects on the cardiovascular system, compared with tricyclic antidepressant drugs. The doses of the SSRI medications that were effective in treating PLC in the studies described above (fluoxetine 20 mg, sertraline 50 mg and citalopram 10–20 mg) are at the low end of the therapeutic range used for treating depression. Case reports suggest that bupropion, mirtazapine, venlafaxine and lamotrigine may be effective for PLC in people who cannot tolerate, or do not respond to, SSRIs.

There are limited data to guide clinicians on how long patients should remain on treatment. For most stroke patients, the natural history of PLC is for the symptoms to gradually improve over time. However, it is estimated that 10%–15% of people continue to manifest symptoms a year after a stroke. Reports have suggested that PLC can reemerge after discontinuing the antidepressant drug, whereas reinstatement of the medication leads to swift amelioration of these symptoms. The need for long-term treatment needs to be evaluated on an individual basis.

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Psychopharmacology for the Clinician columns are usually based on a case report that illustrates a point of interest in clinical psychopharmacology. They are about 500–650 words long and do not include references. Columns can include a bibliography which will be available only at the journal Web site and can be accessed through a link at the bottom of the column.

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