CASE REPORT

Emotional Incontinence - The Other Poststroke Phenomenon

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Summary

Emotional incontinence is a disorder of emotional control following brain damage. It refers to the heightened tendency to cry or less commonly laugh, out of proportion to the underlying mood. Recognition of this phenomenon is often lacking as it is confused with other related sequelae of brain damage such as depression. This is a case report of an elderly female exhibiting poststroke emotional incontinence.

Key Words: Emotional incontinence, Pathological crying, Emotionalism, Selective Serotonin Reuptake Inhibitors

Introduction

Emotional incontinence refers to an impairment of emotion regulation wherein there are outbursts of weeping or laughing, occurring with little warning or control. The ability to suppress or modulate a response is lost, at very low levels of stimulation. These outbursts can be precipitated by emotion-laden stimuli or even minor events. Exaggerated, involuntary facial expressions may accompany emotional incontinence. The other terminologies used to describe this phenomenon include emotionalism, emotional lability, pseudobulbar affect and pathological crying or laughing, resulting in much confusion in nomenclature. Stroke is probably the most common etiologic disease associated with emotional incontinence. The reported prevalence is about 15-20% in a British stroke study[1]. Emotional incontinence is also not an uncommon manifestation associated with traumatic brain injury, brain tumors, motor neuron disease and multiple sclerosis.

Doctors may not recognize emotional incontinence or may undermine its distressing impact on the patient, thus deeming the pathological crying to be merely an understandable reaction to serious illness. It is then relegated to the lowest echelons of disease management, in turn impeding rehabilitation. Emotional incontinence has also been mistaken for post-stroke depression, not recognizing it to be a distinct entity warranting attention.

Case Report

A right-handed 67 year-old lady, Mrs. E, was transferred to the Geriatric Ward for further management including post-stroke rehabilitation. She had left hemiparesis since suffering her first stroke one month prior to the hospital admission. Past medical history included hypertension and hypercholesterolemia. Computerised Tomographic scan of brain revealed infarction of the right external capsule and anterior limb of right internal capsule. Magnetic Resonance Imaging of the brain later revealed multiple old cerebral, cerebellum and brain-stem infarcts.

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In the ward, Mrs. E was noted to have sudden bouts of crying with severe grimacing. Her family noted that she was unusually and inappropriately tearful since the onset of her stroke. Mrs. E stated that she could not explain the reason for this, describing the episodes to be spontaneous and uncontrollable. The episodes were nearly always triggered by trying to engage her in conversation. There were at least eight to ten episodes daily lasting between one to two minutes; the fits of crying dissipated as spontaneously as they began. The tearfulness appeared in excess of any underlying feelings of sadness. These sobbing responses were also triggered by nonspecific stimuli such as neutral conversation (e.g. about television programmes), and assessment of orientation; as well as by trivial, appropriate, emotion-laden stimuli such as visitors and gentle enquiries about family. The weeping spells disrupted her sessions with her rehabilitation therapist. Her past personal history was devoid of psychiatric illness including depression. Family history revealed that one sibling had suffered from depression. Premorbidly, Mrs. E. was described to be cheerful and had not been prone to tearfulness. She had been independent in activities of daily living and was the primary caregiver for her grandchildren in her own home.

She was assessed for depression. Despite feeling occasionally sad, she did not experience pervasive and persistent low mood. She reported that she was able to look forward to receiving visitors especially family members. During their visits, she interacted well despite the interspersed crying spells. The absence of persistent, pervasive low mood and loss of pleasure or interest made the diagnosis of depression less likely. Her sleep and appetite were normal. There were no additional depressive symptoms such as guilt, death wishes, suicidal thoughts or hopelessness.

Her cognitive functions were assessed using the Mini-Mental State Examination. Orientation, registration, recall and language (use, repetition and comprehension) were intact. Her attention and concentration was impaired. Her score of 21/30 was suggestive of cognitive impairment. However, the score was influenced by illiteracy that affected domains involving reading, writing and calculation. Results of relevant laboratory investigations were within normal limits.

A selective serotonin reuptake inhibitor (SSRI), Sertraline 25mg daily, was commenced to alleviate the emotional incontinence in hope of her better participation in rehabilitation and recovery. This resulted in a rapid and dramatic response. By the second day, her family member and ward doctors noted that her crying episodes were conspicuously less in intensity and frequency. There was resolution of emotional incontinence between the third and fourth day.

Discussion

Emotional incontinence is frequent in acute stroke (15-21%) showing a decreasing prevalence with time[1]. Patients are often distressed and embarrassed by its occurrence. As well as being socially disabling, emotional incontinence can also interfere with the rehabilitation process[2].

There appears to be a relation between early emotional incontinence and later emergence of major depression. Emotional incontinence may develop more frequently in patients with post stroke depression than in those without depression[1]. However, emotional incontinence is differentiated from post-stroke depressive symptoms in that patients find that the emotional display is uncontrollable and out of proportion with their underlying feelings of sadness. In contrast, symptoms of depression in a medically ill patient include disinterest in remedial therapies, a persistent and pervasive lowering of mood, lack of reactivity, feelings of hopelessness, guilt, worthlessness. Physical symptoms of impaired sleep, loss of appetite, fatigue, impaired memory and concentration may be less helpful, as these could be attributable to the physical illness.

Selective serotonin reuptake inhibitors (SSRI) have been documented to promptly ameliorate emotional incontinence[3,4]. The improvement may be apparent by day three. In contrast, the usual onset of SSRI antidepressant therapeutic response in the treatment of depression is two to three weeks from the initiation of medication. The effect of SSRIs on emotional incontinence cannot be solely ascribed to the relief of depressive symptoms. The rapidity of response could be attributed to direct stimulation of the serotonergic neurotransmission. Pertaining to SSRI treatment for emotional incontinence, the duration of pharmacotherapy is yet to be established.

A specific link between emotional incontinence and lesion location has not yet been demonstrated despite studies implicating several locations e.g. anterior frontal and temporal lesions, subcortical lesions, and lenticulo-capsular lesions[1,5]. The pathophysiological mechanism

that underlies emotional incontinence is thought to involve serotonergic dysfunction, caused by the partial destruction of the raphe nuclei in the brain stem or their ascending projections to the hemispheres[3]. The therapeutic efficacy of SSRIs in emotional incontinence is postulated to work via this mechanism.

Conclusion

In caring for post-stroke patients, doctors should be aware of the acute emotional and behavioral changes following brain damage. Emotional incontinence can mimic depression. Early recognition and management of emotional incontinence can alleviate distressing symptoms and improve patient's participation in rehabilitation. Although emotional incontinence is generally a non-permanent stroke complication, periodic assessments are indicated in these patients as depression may manifest in the chronic phases. A trial of selective serotonin reuptake inhibitors may be useful in ameliorating the manifestation of this condition.

References

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