The Story Behind Pseudobulbar Affect

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Introduction

PBA is a condition that causes uncontrollable crying and/or laughing that happens suddenly and frequently. It can happen in people with a brain injury or certain neurological conditions. A person having a PBA may cry when they don't feel sad or when they only feel a little bit sad, sometimes may laugh when they don't feel amused or when they only feel a little bit amused. (3)

Causes

Scientists believe PBA may result from damage to areas of the brain that helps control emotions. An injury or disease that affects the brain can lead to pseudobulbar affect symptoms:

- Stroke (28%)
- Alzheimer's disease/ Dementia (39%)
- Multiple sclerosis (46%)
- Parkinson's disease (24%)
- Traumatic brain injury (48%) (3)

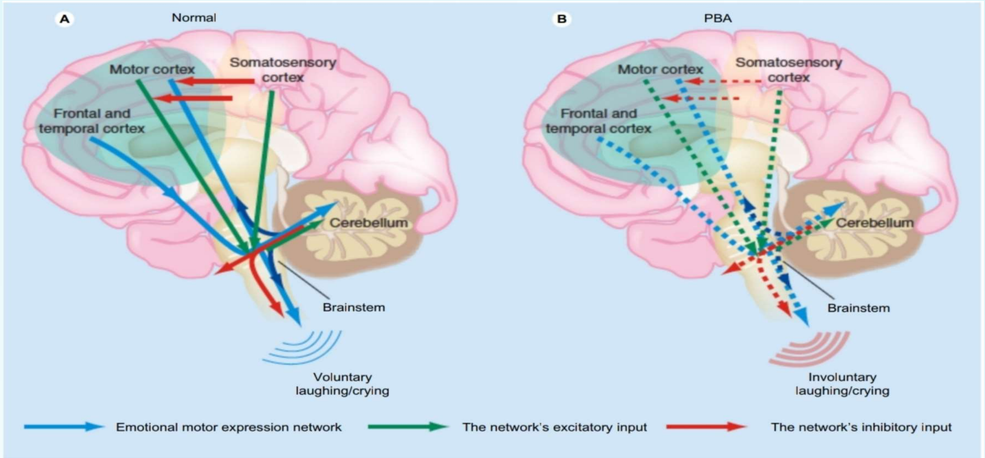

Figure1: Shows the pathophysiology of PBA (1)

Pathophysiology

One hypothesis explain that the cerebellum plays a key role in modulating emotional responses so as to keep them appropriate to the social situation and to the patient's mood based on input from the cerebral cortex. Disruption of corticopontine–cerebellar circuits results in impairment of this cerebellar modulation, causing PBA symptoms. (1)

Dysfunctional neurotransmitters theory, serotonin, glutamate are disrupted in various brain pathways, leading to alterations in emotional expression. (2)

Clinical presentation

- Sudden, extra intense fits of crying or laughter which is involuntary.
- Crying or laughter that doesn't seem right for the situation.
- Outbursts of frustration and anger.
- Facial expressions that don't match emotions. (3)

Treatment

The aim of treatment is to reduce both severity of PBA and frequency of the episodes.

The most commonly used treatments target the primary neurotransmitters implicated in PBA, serotonin and glutamate. (2)

Conclusion

PBA is an emotional disturbance can impact quality of life which occurs secondary to a neurologic disorder or brain injury and thus resulting in disturbances in emotional expression.

References

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