

Depression

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Invisible vs Visible MS



The image features a large iceberg floating in the ocean. The top of the iceberg, which is visible above the water line, represents the 'visible' symptoms of Multiple Sclerosis (MS). The much larger portion of the iceberg that is submerged below the water line represents the 'invisible' symptoms. A horizontal white line marks the water level. Two teal-colored text boxes are overlaid on the image: one on the visible part of the iceberg and one on the submerged part.

Relapses
Physical disability
Cognitive impairment

Cognitive impairment
Brain atrophy
MRI lesions
Depression
Pain
Fatigue
Anxiety

Importance?

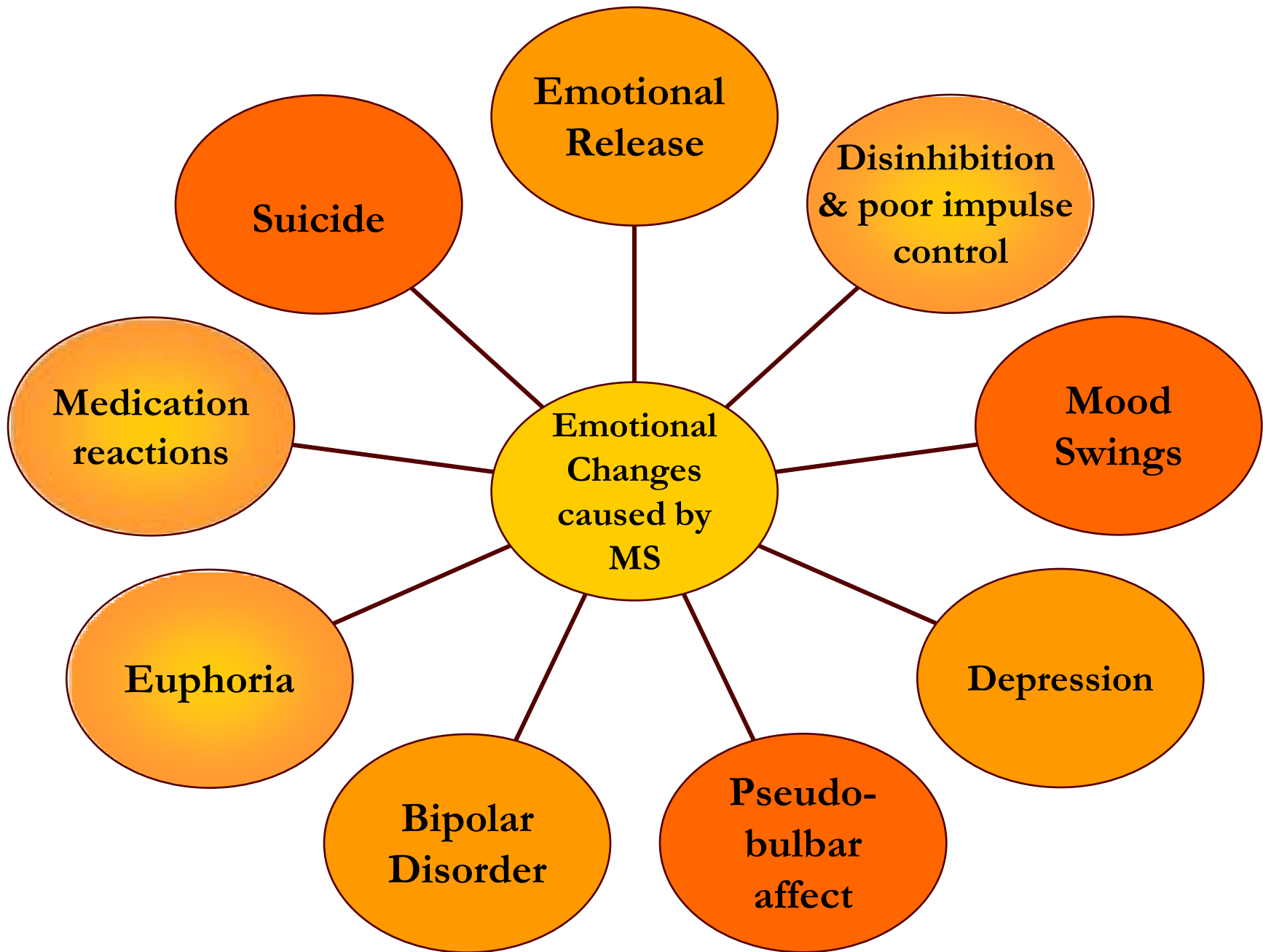
- Depression occurs at some time point in approximately 50% of MS patients.
- This is higher than for other chronic medical conditions where levels are generally about 14 %
- Risk of suicide is 7.5 times higher among people with MS than the general population.
- Decreased adherence to MS treatment.

– Ferrando, Samptom, Mor, Nicor, Findler and Apatoff. (2007). Patient health questionnaire-9 to screen for depression in outpatients with MS. *International Journal of MS Care*, Fall, 99-103

Clinical Depression

Also known as major depressive illness, **clinical depression** is a serious, and, at times, life-threatening psychiatric condition that meets specific diagnostic criteria.

Criteria includes: profound sadness, loss of interest in everyday activities, changes in appetite and sleep patterns, feelings of worthlessness and/or guilt, lassitude, and thoughts of death or suicide.



Cause

- Reduced levels of neurotransmitters, like serotonin, norepinephrine (NE), and dopamine.
- Organic: scar tissue on nerves causes disruption of signal in brain and cause episodes of depression.

Is there an Immunomodulatory Connection?

- Increased levels of proinflammatory cytokines: IL-6, IL-1, Tumor necrosis factor (TNF), C-reactive protein and circulating adhesion molecules in plasma, serum and CSF.
- Decreased levels of anti-inflammatory cytokines: IL-4, IL-10.

Is there a relationship between MS relapses and depression?

- Reports of increase in MS relapses during stressful and emotional times.
- Could treating depression lead to a decrease in MS relapses?
- Decreases in interferon gamma as depression improves.
- Decrease in gadolinium enhancing lesions with Fluoxetine

Symptoms that Overlap

- Fatigue
- Cognitive dysfunction
- Pain
- Anxiety
- Sleep disorders
- Side effects from medications.

Screening for Depression

- The Goldman Algorithm for the Treatment of Depression in MS.
- All MS patients should be screened for depression at each visit with one of the following:
 - Two question screen (2QS)
 - Beck Depression Inventory (BDI)
 - Patient Health Questionnaire (PHQ-9)

Treatment

- Mild depression can resolve on its own. Sometimes it is situational and as the crisis is resolved emotions return to normal.
- Even with antidepressant therapy, many have residual depressive symptoms.

Therapy

- Psychotherapy: talking with psychologist, psychiatrist, or mental health professional. Including family when ever possible.
- Cognitive-Behavioral Therapy alone has been shown to work with mild to moderate depression.
- Combination therapy using both, non-pharmacological and antidepressant treatment may be the best approach.



Resources

- NAMI- National Alliance Mental Illness
- www.nami.org
- Local chapter NMSS, MSAA.
- Support groups, online groups, local religious organizations

Medications



- There are numerous antidepressants available.
- Depression **does** respond to treatment.
- SSRI's have been shown to help MS patients with depression, and may help with MS related fatigue and may also help with improving the effectiveness of medications like gabapentin for neuropathic pain.

CAM and Depression

- Exercise
- Meditation and Mindfulness activities
- Yoga
- Adequate sleeping patterns
- Eating healthy diet and getting enough fluids.

Under Treatment of Depression

- A 2009 survey of people with MS in upstate NY, showed that 74% of the respondents suffer from depression. *New York State Multiple Sclerosis Consortium (NYSMSC)*
- 59% have not been formally diagnosed and do not receive treatment.
- 58% reported receiving treatment, but only 11% are being treated by mental health professionals as opposed to neurologists and/or primary care physicians.

Conclusion

- Effectively recognizing and treating depression will go a long way in improving QOL for our MS patients, studies have shown that it is under-diagnosed and under treated.
- More studies need to be done.
- *“A sad soul will kill you quicker, far quicker, than a germ.” John Steinbeck.*

References

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