

OUTLINE OF PRESENTATION

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Depression in MS

- 3 sets of symptoms and signs: Cognitive, Behavioural and Psychological.
- Lasting at least 2 weeks.
- Associated with impaired day to day functioning.
- NOT associated with a medical condition or effects of a substance.
- In Multiple Sclerosis: Depression due to a general medical condition.
- **PSYCHOLOGICAL**: hopelessness, helplessness, poor self concept, guilt, shame, thoughts of death. Anger, impatience, irritability.
- **BEHAVIOURAL**: fatigue, anhedonia, apathy, social withdrawal, lassitude.
- **COGNITIVE**: poor attention, poor concentration, slow thinking process, etc.
- Routine scales used in “regular” depression might not be applicable or reflect accurately the cognitive behavioural sequelae of M.S. (insomnia, fatigue etc.) Beck, Hamilton etc.
- Falsely elevated prevalence rates a possibility.
- Hence low mood should be the cardinal feature in diagnosing depression in M.S.
- Lesions in orbito-frontal and prefrontal cortex, caudate, putamen and cingulate have been associated with depression in subcortical diseases (Huntington’s and Parkinson’s disease). Mayberg ‘90 & ‘92
- Similar regions are affected in non-M.S. depression. Mayberg ‘02.
- More common in cases with higher lesion load. Hence:
- Primary progressive > relapsing-remitting.
- Depression more common in M.S. than in A.L.S., muscular dystrophy and epilepsy. Schiffer’84, Whitlock’80.

Suicide in MS

- Rate in general population: 1%. One in 10 dies.
- Suicide: increased rate in neurological disease such as M.S. and epilepsy: 15% of all deaths in 3126 M.S. patients. Sadovnik’91.
- 7.5 times higher for age-matched controls.
- M.S. patients: male and diagnosis before age 30 at higher risk. Stenager’92.
- Loss of specific functions, financial-social issues, pre-morbid functioning. Suicidal ideation very common but actual intent is rare.

Treatment issues:

- Some evidence that interferons could either produce or worsen mood symptoms.
- Several studies but methodology is flawed in all.
- Issues: non-validated methods used for diagnosis of depression, symptom vs. syndrome, premorbid risk not assessed, mental status not assessed etc.
- Previous history of affective disorder might be a strong predictor in interferon-induced depression.
- Only 1 double blind, randomized, placebo controlled trial in 28 depressed M.S. patients.

- Desipramine; HAM-D.
- Side effects were problematic.
- Modest improvement in mood likely due to sub-therapeutic levels.

Medication trials: open label, retrospective, anecdotal.

- Sertraline, Fluoxetine.
- Venlafaxine, citalopram, mirtazapine.
- Lithium augmentation if necessary but potential for more neurologic-endocrine side effects.
- Bupropion: seizure risk a concern but potentially activating properties could be of benefit in M.S.
- MAO-I: Activating?

ECT

- 20% risk of inducing an M.S. attack.
Gadolinium enhanced lesions on MRI pre-ECT a possible predictor for neurological deterioration post ECT.
Multiple sclerosis and ECT: possible value of gadolinium-enhanced magnetic resonance scans for identifying high-risk patients.
G MATTINGLY, K BAKER, CF ZORUMSKY and GS FIGIEL
ECT in Delusional Depression With Multiple Sclerosis
EMMANUELLE CORRUBLE, M.D., Ph.D., HAMDANE AWAD, M.D., GUY CHOUINARD, M.D., M.Sc., F.R.C.P.(C.) and PATRICK HARDY, M.D., Ph.D.
Paris, France

Psychotherapies:

- Cognitive Behavioural Therapy.
- Psychodynamic.
- Supportive.

MANIA in MS

- Elevated, irritable or expansive mood.
- At least 1 week. Less, if hospitalization needed.
- Inflated self esteem.
- Decreased need for sleep.
- Pressure of speech/thought.
- Poor attention.
- Increased in pleasure seeking activity.
- Agitation or increased goal directed activity.
- Impairment in general level of function.

Hypomania:

- Elevated, expansive or irritable mood.
- At least 4 days.
- Same symptoms and signs as mania but not as severe.
- Does NOT cause impairment in general functioning. Hospitalization is not needed.

- Change in functioning is observable by others.
- Monroe County study: Schiffer 1986.
- Rate of calculated co-morbidity was: 5.4
- Actual rate found: double that figure and felt to be an underestimation.
- Demyelination preceded mania by 1 year.
- Patients not on steroids.
- Rate of Bipolar Mood Dis. in the general population: 1%
- In M.S.: 13%. (Joffe '87). Overestimation.

STEROIDS

- Euphoria in aprox. 1/3 of patients.
- ACTH more likely than prednisone to precipitate a manic episode.
- History of mood disorder and or alcoholism increase risk of steroid induced mania.
- Genetic predisposition for mood disorders and or alcohol abuse.

EUPHORIA

- Described in 1926 as “euphoria sclerotica” by Wilson & Cotrell '26.
- Rates are much less today than when described.
- Hypomania? Lability? Pathological laughing?
- Associated with severity of cerebral damage.

PATHOLOGICAL LAUGHTER AND CRYING

- Many causes: stroke, brain injury, multiple sclerosis.
- First description in 1926 by Cottrell and Wilson.
- Further described in 1939, 1941, 1956 etc.
- Different from Emotional Lability.
- Lability is contextual: correlates with mood.
- PCL is incongruent with mood.
- Uncontrollable crying and or laughter without a discernible stressor.
- No correlation with depression or mania.
- 10% of M.S. patients.
- Associated with long duration of illness, progressive course but moderate physical disability.
- More cognitive impairment.
- More lesion load
- M.S., Stroke, A.L.S., brain tumours, brain injury and Alzheimer's
- Patients respond to treatment with low doses of amitriptyline, SSRI's or levodopa. Amantadine.
- Dextromethorphan - quinine combination.
- Most patients respond quickly.
- Few patients need combination of agents or high doses.
- Rule out mood disorder.

APATHY

- Absence or lack of feeling, emotion, interest or concern.
- Rates vary: 11% of ABI patients. Another 11% had both apathy and depression.
- Apathetic patients seem to be significantly older, than non-apathetic patients.
- More deficits in activities of daily living.
- Lesions in the basal ganglia: posterior limb of internal capsule.

- Medial frontal lobe areas.
- Rule out sensorial deficits (visual, auditory, etc.).
- Age, cultural expectations, family involvement.
- Personality disorders, medications, general illnesses, etc.
- Needs to be distinguished from depression.
- Depression and apathy can coexist.
- Treatment includes stimulants like methylphenidate, modafinil, amantadine and others.
- Hypertension and tachycardia are concerns.
- Behavioural modification is part of the treatment. Caregivers need to be involved.
- Difficult to treat in severe cases.