TRAUMATIC STRESS AND DISSOCIATIVE SYMPTOMS ADJUNCTIVE PHARMACOLOGICAL INTERVENTIONS

Ulrich Lanius Ph.D.
TRAUMATIC STRESS

DISSOCIATIVE SYMPTOMS

- Dissociative amnesia - alterations in memory
- Derealization - external world seems unreal
- Depersonalization – altered self-awareness
- Identity confusion/alteration - state switching
- Flashbacks – re-experiencing traumatic events
- Affect dysregulation – unstable mood
- Alexithymia – inability to feel emotion
- Somatoform dissociation – somatic symptoms
DISSOCIATIVE SYMPTOMS

DIAGNOSES

• PTSD – Dissociative subtype
• Depersonalization/Derealization Disorder
• Dissociative Amnesia
• Dissociative Identity Disorder
• Other Specified Dissociative Disorder (e.g., possession, trance)
• Unspecified Dissociative Disorder (used to be DDNOS)
• Conversion/Somatoform Disorders
• Borderline Personality Disorder
• Anxiety, Depression, Bipolar, Schizophrenia, etc. may all have presentations that include dissociative symptoms
Lack of caregiving during the first few weeks of life decreases the number of opioid receptors in mice (Bonnet et al. 1976)

- Fewer receptors to bind released opioids
- Stress results in release of endogenous opioids
- Decreased modulation
PTSD

UNEVENTFUL CHILDHOOD
PTSD
ATTACHMENT PROBLEMS
BASIC AFFECTIVE CIRCUITS

DEFENSIVE EMOTIONS

- Hierarchical
- Active vs. passive
- SEEKING
- RAGE, anger
- FEAR, flight, escaping, avoidance
- PANIC, freeze, immobilization, despair, death
Fig 1. Some key subcortical brain areas involved with the genesis of basic emotions in the mammalian brain.
VENTROLATERAL PAG
IMMOBILIZATION

- High density of opioid receptors
- Physical restraint
- Electric/cholinergic stimulation > immobilization
- Tonic Immobility – TI
- Freezing
- Learned Helplessness
- Respiratory function
- Associated with compromised immune function
- Naltrexone reduces effects
NALTREXONE
VENTROLATERAL PAG

- Decreases immobilization
- Increases active defensive responses
- Dependent on context
- Safe relationship - oxytocin
- Absence of safe relationship – vasopressin
- Oxytocin – SEEKING attachment
- Vasopressin – FEAR, RAGE
TRAUMA SYMPTOMS

OPIOID ANTAGONISTS

- BPD & PTSD – naltrexone – Schmahl et al. (1999)
- BPD & PTSD – naltrexone – Bohus et al. (1999)
- Depersonalization – naloxone – Nuller et al. (2001)
- PTSD – naltrexone – Lubin et al. (2002)
- Depersonalization – naltrexone – Simeon & Knutelska (2005)
TRAUMA SYMPTOMS
LOW DOSE NALTREXONE

• Lanius (2004, 2006) – series of case studies
• Lanius & Corrigan (2014)
• Pape & Wöller (2015)
• Dissociative Disorders, Complex PTSD
• 11/15 patients immediate positive effects
• 7/15 lasting helpful effect
• Clearer perception of both surroundings and inner life
• Assessment of reality and dealing with it ↑
• Perception of own body ↑
• Affect ↑
• Self-regulation ↑
Female, mid 30’s.
Polyfragmented DID
Hx of Ritual Abuse
Hx of endometriosis
Dysfunctional marriage
Naltrexone 50mg qid
• Dissociative Sx
• Much improved EMDR processing
• Ego state that “does not want to live”
• Develops pneumothorax
• Hospitalized - complications in hospital re: anesthesia
• Goes off naltrexone
• Improvements maintained
• Dissociative Sx continue to interfere w/ EMDR at times
• Subsequently naltrexone prior to session only
• Results in series of case studies
SERIES OF CASE STUDIES
FERRIE & LANIUS 2001

• N=20
• Previously unsuccessful EMDR treatment
• SUD unresponsive.
• EMDR protocol aborted due to derealization (n=15) and somatization (n=5).
• Body focused, ego-state, RDI, and other interventions unsuccessful.
• Naltrexone or naloxone prior to EMDR session
• Patients had longstanding therapeutic relationship w/ good rapport
• Naltrexone  25mg - 125mg 45-60 minutes prior to session
• Usually 25mg or 50mg
• Naloxone 1mg subcutaneous at beginning of session
FERRIE & LANIUS 2001

RESULTS

• Completed EMDR processing (n=13)
• Eliminated or improved dissociation (n=11)
• Decreased somatization (n=5)
• Subsequent EMDR processing improved w/o opioid antagonist
• Long-term improvement after session (n=14)
• Adverse effects (n=6) - all naltrexone
• No therapeutic effect (n=2)
• Gastric distress
• Abdominal pains, nausea, vomiting
• Much more likely with naltrexone than with naloxone
• Nausea and vomiting were evident in 33% of the cases in our sample that were administered naltrexone, but in none of the subjects that received naloxone
• Robbie: "Wow it’s nice to feel the ground, I’ve never felt my feet on the ground before."

• Chris: "I couldn’t have faced that without the Naloxone."

• Winona: "A wave of numbness went through my legs and out."
• Lois: "I can’t seem to back away from it the way I usually do, and yet it wasn’t so bad."

• Becky: "The voices have stopped, my groin doesn’t hurt anymore, the headaches are gone; for the first time in 10 years."

• Felicia: "I like it, it makes me not sad, sort of dozy. It stops my worry thoughts.”
LDN FOR TRAUMA SYMPTOMS

FIRST CASE

• Female, early 40’s
• Congenital heart malformation
• Thalidomide
• Heart partially reorganized in utero
• Severe attachment trauma
• Severe childhood medical trauma
• Dissociative Disorder, referred for anxiety
• Treated for epilepsy as child - Dilantin
• Pneumothorax as child
• Psychiatric admission as young adult
• Chronic Fatigue Syndrome
• Rheumatoid Arthritis
Unable to tolerate pre-birth EMDR
Naltrexone 50mg
Improvement in affect regulation
Improvement in chronic fatigue
Improved arthritis pain
Bridges into old memories and becomes overwhelmed
• Low Dose Naltrexone initiated
• No reversal of analgesia
• Decreased tachycardia and bradycardia
• Blood pressure stabilized
• Holter monitor data show that heart is working on own w/o pacemaker more frequently
• Weight loss
• Fatigue ↓ Pain ↓
CASE STUDY 1
FIBROMYALGIA

• Dissociative Identity Disorder
• Amnesia for large parts of life
• Multiple chronic health problems
• Chronic neutropenia, fibromyalgia, IBS, etc.
• Single daytime dose - .5mg ➞ .7mg ➞ 1mg
• Nighttime dose breaks through amnesia: nightmares
• Improved capacity for psychotherapy – ego state work
• Improved health status: WBC, ↓ fibromyalgia, ↓ IBS
CASE STUDY 2

COMPLEX REGIONAL PAIN SYNDROME

- Intractable pain
- Initially prescribed opiates
- MS diagnosis
- Amnesia for large parts of life
- Cipralex, Gabapentin, Nabilone, Sativex & Ketamine Cream
- LDN prescribed at 4mg per day
- Cannot tolerate, breaks into memories
- Lowering of dose recommended .5mg bid
- Responds to LENS Neurofeedback and Body LENS (K1 acupuncture spot)
- Dissociative Identity Disorder
- Ego State Therapy
- Very slow and gradual increase in naltrexone dose in .1mg steps
CASE STUDY 3

PSYCHOSIS

- Dissociative Identity Disorder
- Attachment Disorder, Substance Use
- Obesity
- Birth trauma, childhood medical trauma, sexual abuse
- Long-term LDN 8mg bid and LENS neurofeedback only
- Massive increase in functioning
- Develops psychosis after relationship break-up
- Dosage increased to 300mg daily for 1 week
- Stabilizes
- Back on 8mg bid
- Now able to do psychotherapeutic work
CASE STUDY 4
DEPERSONALIZATION DISORDER

- Developed after Ecstasy experience
- Social anxiety
- History of inadequate caretaking in childhood
- Unresponsive to psychotherapy
- Unresponsive to multiple meds
- CT scan abnormality
- Follow-up MRI interprets CT findings as artifact
- Slight EEG anomaly – not seizure disorder
- Neurofeedback map consistent with seizure-like focus
- LDN results in minimal improvement
- Naltrexone 150mg optimal effects
- Naltrexone 200mg triggers anxiety, less effective
- LENS neurofeedback
- Normalized social and employment functioning
- Normal neurofeedback map
CLINICAL EFFECTS

INCREASED FUNCTIONING

• Attention/Concentration ↑
• Body Awareness ↑
• Mindfulness ↑
• Affective regulation/self-regulation ↑
• Affect tolerance ↑
• Ego-strength ↑
CLINICAL EFFECTS

DECREASED SYMPTOMS

- Dissociative symptoms, derealization, depersonalization ↓
- Tonic immobility ↓.
- Flashbacks, intrusive symptoms ↓.
- Hypervigilance ↓.
- Fearfulness, anxiety & panic symptoms ↓.
- Anger, irritability, rage ↓.
- Vulnerability ↓.
- Startle response ↓.
- Emotional numbing & alexithymia ↓
- Amnesia ↓
- Somatization ↓
- Self injurious behavior ↓
CLINICAL EFFECTS 
FACILITATING 
PSYCHOTHERAPY

- Mindfulness ↑
- EMDR processing ↑
- Sensorimotor Psychotherapy (SP) ↑
- Somatic Experiencing ↑
- Hypnosis ↑
• Non-linear dosage effect (Castellano & Puglisi-Allegra, 1982)
• Very low and high dosages most effective but not intermediate
• Low dose: may act preferentially on presynaptic receptor sites
• High dose: may activate postsynaptic receptor sites (Beluzzi & Stein, 1982)
• Target dose .06mg/kg bodyweight
• Minimal dose effective in animals to reduce EtOH
• Commonly bid or tid
• E.g., roughly 3mg for 120 pounds bodyweight and 5mg for 180 pounds bodyweight
• Most commonly bid is sufficient
• If concern about unusual medication side effects, start with .5 or 1mg and titrate upwards
• Minimal side effects, well tolerated
• Immune system effects: once daily dose preferred?
PTSD & DISSOCIATIVE SYMPTOMS
HIGH DOSES

• After being on LDN for 7 days regular or high doses will not trigger withdrawal
• Sometimes high doses are more effective
• Higher doses essential for optimal therapeutic response
• Depersonalization Disorder
• Eating Disorders
• Some individuals respond better better to increasing doses
• Empirical trials
• Reversal of analgesia – Medicalert bracelet
• Sensitivity is bottomless
• Much lower doses for sensitive individuals or in case of amnesia
• Braking into memories
• Careful dosing is .5mg or 1mg steps
• As low as .01mg may be necessary
• More commonly .1mg increments for very sensitive
NALTREXONE

ADVERSE EFFECTS IN PTSD

- Sleep – bimodal effects
- Amnesia – sleep disturbance, nightmares with evening dose
- ↑ Anxiety
- ↑ Avoidance
- Headache – accessing part of self; not ready to
- Increases need for attachment
- In certain context increased FEAR and RAGE
- Feeling stoned - ↑ receptor sensitivity with ongoing stress response
- Nausea – opioid withdrawal
ADVERSE EFFECTS
MANAGING SENSITIVITY

• If adverse effects always try lower dose first
• Occasionally higher dose better but can be problematic
• Sensitive individuals – start with .1mg dose
• Sometimes .01mg
• Daytime dosing if sleep problems
• Patient driven dosing – collaborative experiment
• Availability of different dosages, e.g., .1mg, .2mg, .5mg, 1mg, 2mg, etc.
• Patient may choose to reduce dosage if too “edgy”
LDN & DISSOCIATIVE SYMPTOMS

CAUTIONS

• Lack of therapeutic relationship
• Too early in therapeutic relationship
• Inadequate rapport
• Primary therapist unavailable
• Lack of relationships - aloneness
• Client is in an abusive relationship and has no options
• Significant amnesia
LDN & OTHER MEDICATIONS

CAUTIONS & BENEFITS

• Increases blood levels of other meds
• Caution if need to be in specific range
• Caution if high doses – side effects
• Augmentation of effects
• Antidepressants effects $\uparrow$ (Amiaz et al., 1999)
• Antipsychotic effects $\uparrow$ (e.g. Sernyak et al. 1998)