Rheumatoid Arthritis, Low Dose Naltrexone, and New Life

Sarah J. Zielsdorf MD, MS

Functional Medicine Internist

Institute for Personal Development

Romeoville, Morris, & Geneva, Illinois

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Case Study Introduction

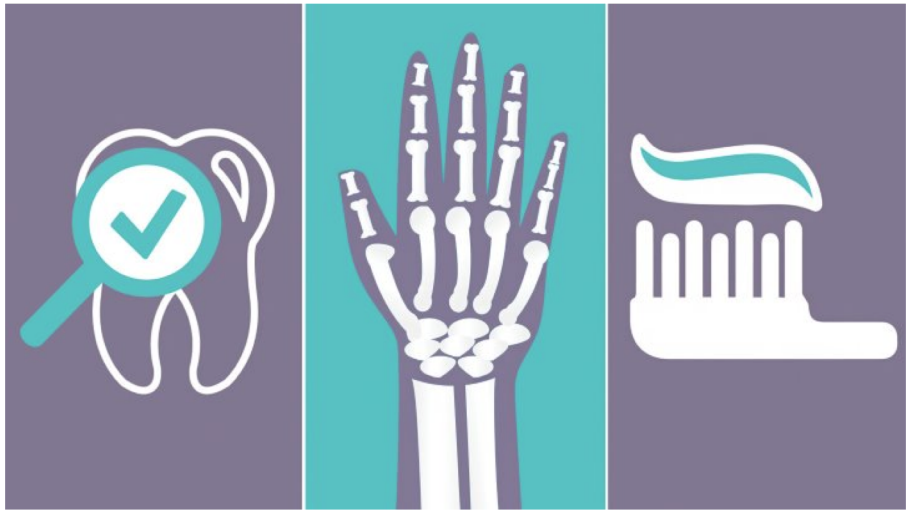
- 26y old F
- Rheumatoid Arthritis (RA), poorly controlled
- Chronic Methotrexate Therapy
- Presented with desire to wean off of pharmacological agents for RA

Pertinent Past Medical History

- Grew up eating diet of processed foods
- Child of divorce
- Long-term abusive relationship
  - Verbal, emotional, physical abuse
  - Lived in fear long-term
- Joint stiffness and fatigue began almost immediately after ending relationship
- Hx chronic yeast infections
- Father w/ hx of Hashimotos hypothyroidism

Rheumatoid Arthritis

- Autoimmune Condition
- 3 Requirements:
  - Genetic Predisposition
  - Environmental Trigger(s)
  - Intestinal Permeability
- Several theories for etiology of RA
  - Infectious mimics
  - Dysbiosis drivers
  - New associations: oral flora/gingival bacteria



Methotrexate (MTX)

- Contraindicated in pregnancy
  - Folic acid antagonist
- Mechanisms of action:
  - Competitive inhibitor of dihydrofolate reductase (DHFR)
  - Inhibition of enzymes involved in purine metabolism
  - Inhibit T cell activation
  - Selective down-regulation of B cells

Initial Findings

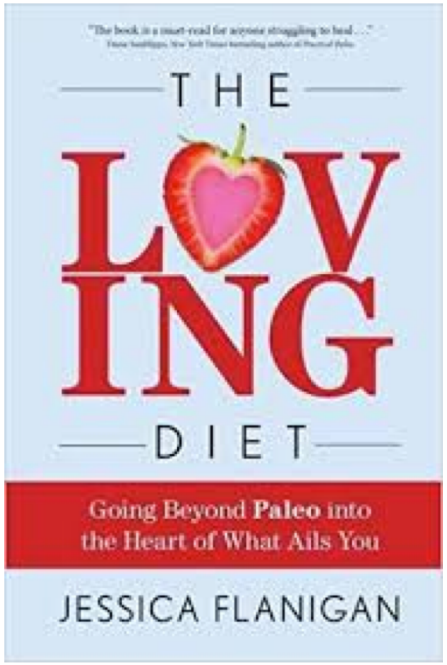
- Presented with severe pain in both hands, bilateral shoulder pain, and rest of joints "feel bruised"
- Initial labs unremarkable other than high titers of RF/CCP antibodies
  - CRP/ESR minimally elevated
  - Pain out of proportion to findings
- Elevated Candida antibodies
  - Tx: Diflucan/Nystatin/Natural Antifungals

Diet and Lifestyle Changes: Paramount

- Do not immediately discontinue patient's medications!
- Must be gradual process
- Continued her low dose MTX, Folic Acid, work to optimize vitamin D levels
- Autoimmune dietary template
- First gluten eliminated
- Then strict elimination diet:
  - Autoimmune Paleo with low FODMAP approach
- Address trauma → referral for EMDR therapy

Short-Term Elimination Diet Stressed

- Do not wish to reduce oral tolerance
  - Reduction of microbial diversity
- Do not attempt long-term restriction diets in setting of chronic gut infections or presence of dysbiotic flora
  - E.g. "Commensals"
- Autoimmune Paleo template
  - "Loving Diet" by Jessica Flanigan
  - Helped with yeast overgrowth sx
  - Nightshade-Free diet may be important for RA patients

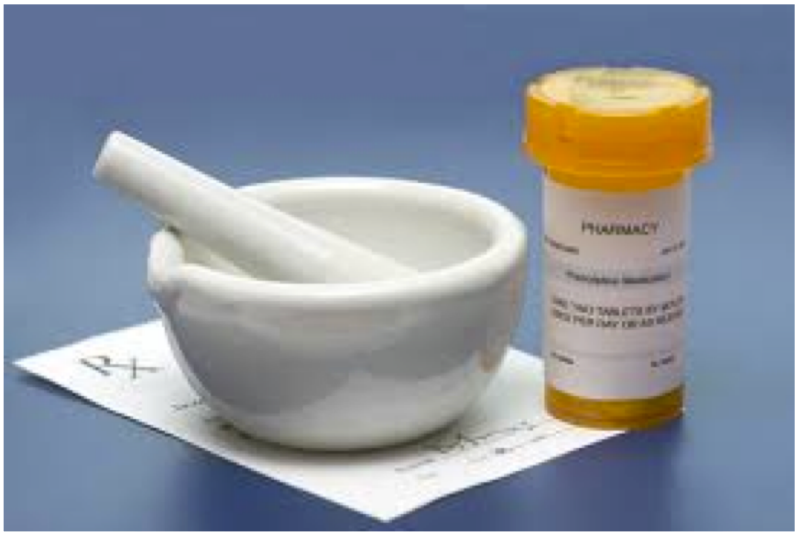


One Month Later…

- Joint pain much improved
  - Swelling confined to R middle finger, +synovitis
  - No further shoulder pain
  - Can clearly see knuckles on left thumb and fingers

Low Dose Naltrexone Prescribed

- Dosing: Bihari Protocol
- Compounded 1.5mg → 3.0mg → 4.5mg oral tablet
- Increased dose every 2 weeks
- Nightly dosing
- Side Effects: none

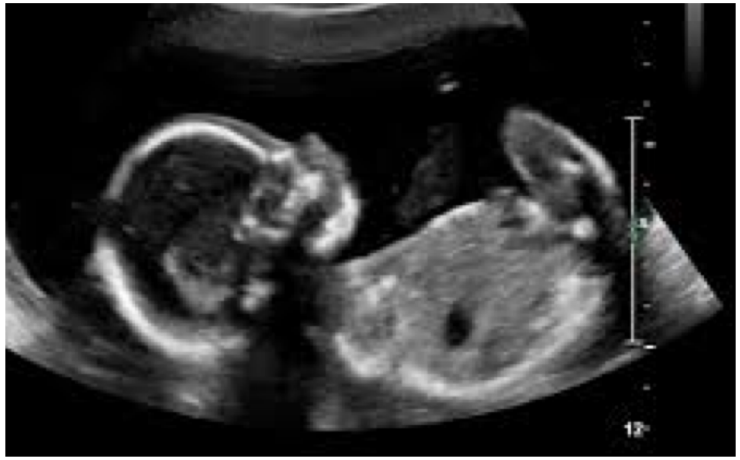


Symptoms Continued To Improve

- After 6 months on LDN
  - Weaned methotrexate
- Patient attributed residual hand stiffness to overuse
- Methylation testing, folate level testing

3 Months Later…

- Patient discovered she was unexpectedly pregnant
- Maintained on 4.5mg low dose naltrexone throughout pregnancy and post-partum period
  - Extensive research and data on pregnancy & LDN (Dr. Phil Boyle)
- Uneventful pregnancy and delivery of full-term, healthy female infant
- No complications



Flare 8 Weeks Post-Partum

- Post-partum autoimmune flares common secondary to immune system shifts
  - Th1/Th2 mediated
- Patient's RA symptoms quickly mitigated by targeted anti-inflammatory supplementation and immune system support
  - Omega-3 Fatty Acids
  - SPMs (Specialized Pro-Resolving Mediators)

Proposed MOAs

- LDN and Rheumatoid Arthritis
  - Opioid antagonism
    - Increased endogenous beta endorphins and met enkephalins
    - Novel microglial cell modulator
      - Suppression of activation
      - Prevent production of reactive oxygen species →
      - Reduction of neuro-excitotoxicity →
      - Reduction of pro-inflammatory signaling cascade
- LDN shown to profoundly benefit conditions associated with elevated inflammatory markers
  - ESR, CRP

Conclusion

- Low Dose Naltrexone is an important consideration for the reduction of chronic inflammation from autoimmune, and musculoskeletal/neurological conditions
- Must treat underlying co-morbidities (especially gut infections) and optimize nutrition to maximize efficacy

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Romeoville, IL 60446

www.ipd.md

(630) 226-9303

LDN 2018 Conference Presentation

By Dr Sarah Zielsdorf