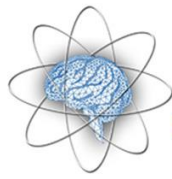


Procedures and Protocols

Basic Procedures and Protocols

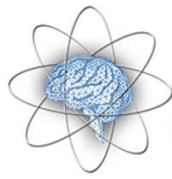
1. Cranial Osteopathic Manual Therapy
 - Should be performed at initial consult by a D.O. if possible or a practitioner trained by an osteopathic physician in manual therapy. Cranial sacral therapy is not the same as cranial osteopathy. See <https://cranialacademy.org/find-a-physician/> to find a physician qualified to do this work.
 - Protocol: 1x/week (Mild TBI: At least 2 total treatments, Mild-Moderate TBI: At least 4 treatments, Moderate-Severe TBI: At least 6 treatments total)
2. Intranasal Insulin
 - Intranasal insulin administered in office and take-home for daily use (Mild TBI: 10 days, Mild-Moderate: 20 days, Moderate-Severe: 30 days)
 - Send kit home with patient instructions attached
3. Hyperbaric Oxygen Therapy
 - Protocol: Mild TBI: 20 sessions minimum, Mild-Moderate: 30 sessions minimum, Moderate TBI: 40 sessions with a repeat of 20 sessions in 3 months if possible, Moderate-Severe TBI: 40-50 sessions with repeat of 20-25 sessions in 3 months
 - If medical grade hyperbaric treatments are unavailable, the TBI patient may utilize an FDA approved home chamber at 1.3 ATA (4.3 PSI) x 1.25 hours per day 5-7 days per week. (Mild TBI: 3 months minimum, Mild-Moderate: 5-6 months, Moderate-Severe: 9-12 months, okay to do 4 days per week after 6 months).
4. Supplement Protocol (Take home)
 - Ascorbyl Palmitate: 3 pills in am; 3 pill in pm (Life Extension)—protects brain from oxidative damage
 - Neuromag: 3 pills /day—helps resolve the neuro-biochemical imbalance in the brain
 - Optimized Tryptophan (Life Extension): 2-3 pills at dinner or bedtime—improves serotonin and aids mood and sleep (Do not administer if patient is taking an SSRI medication)
 - Two Per Day Multiple (Life Extension): 1 pill 2x/day—supports increased energy demands for healing
 - Raw Adrenal Glandulars (Natural Sources): 1-2 pills 2x/day—supports cortisol levels
5. Ketogenic Diet
 - With 1-2Tbsp MCT Oil 2x/day with meals (Wild Foods or Brain Octane) for 2 months (Dietary counseling is available with Dr. Sasha Hope, PhD nutritionist <https://www.flatironsintegrative.com/drsasha>)
6. Home and Sleep Hygiene



- Patient should avoid work for at least 1-4 weeks after injury; longer time away from work if patient has a more severe injury.
 - Patient should avoid strenuous activities for 4 weeks after injury.
 - Patient should avoid computer screens as much as possible for 4 weeks after injury, particularly at night.
 - Patient should report any sleep issues to practitioners via outcomes measures in the TBI Therapy app.
7. Psychology/Psychiatry Referral
- At any point in which a patient indicates psychological challenges in his or her initial diagnostics or later during treatment, he or she shall be immediately referred to a psychiatrist and/or psychologist.

Regenerative and Functional Medicine Protocols

8. Basic IV Therapy
- As needed; trained functional medicine practitioners may choose dosing based on patient but should focus on antioxidants (like glutathione, non-corn ascorbate, alpha lipoic acid-only from Europe (not China), Myers nutrients with increased magnesium, tryptophan, and NAD+). All nutrients should be preservative free. Untrained practitioners may follow standardized IVs (which can be provided by TBI Therapy upon request).
9. Ketamine IV Therapy
- An option for trained practitioners to utilize for patients with significant pain as well as PTSD or other psychiatric concerns. General ketamine IV protocols start at 0.5mg/kg and increase dose for 4 total treatments over one month. Patients must be closely monitored for drops in blood pressure and other symptoms. Proper training is required before administering. IV therapies shall be performed once per week.
10. Functional Medicine Treatments
- For other medical conditions, particularly toxins such as xenoestrogens (birth control pills, plastics), chemical, pesticide, heavy metal exposures (such as mercury fillings), viral pathogens (including EBV, HSV, CMV, etc), vector transmitted diseases (Lyme disease), cardiovascular disease, cancer. These treatments may be done by other practitioners but should be performed if possible before the primary regenerative medicine treatments.
 - Direct hormone treatments such as testosterone for young males or females, in general, should be avoided at this time. A brain injury, while it may cause hormone deficiencies, is rarely caused by a deficiency of these hormones. In general, we do not want to commit young males to lifelong testosterone replacement. It is best to first correct the underlying injury pattern that is occurring in the brain. The exception here is thyroid



hormone replacement which should be done with appropriate combo of T4 and T3 or bovine or porcine glandulars if necessary.

11. Regenerative Protocols

- Intranasal SoaP Cocktail – See “Myers Cocktail, PRP Standard, and Intranasal SoaP Cocktail Prep” resource – shall be administered after 10 days of consecutive hyperbaric oxygen treatments (HBOT) with one IV nutritional therapy (including NAD+ and Myers nutrients). Patients should receive a total of a minimum of 2 and max of 4 Intranasal SoaP Cocktails for each 40 consecutive hyperbaric treatments.
- Excess SoaP Cocktail may be added to the IV or injected for musculoskeletal injuries by a qualified physician.

Prognostic Assessments

12. WAVI

- Patients shall all be assessed with WAVI scans at 2, 4, and 6 months after treatments.

13. Cognitive Assessment Testing

- Patients shall be assessed with cognitive assessment testing and questionnaires for each month after baseline for a total of 6 assessments.

14. Patient Outcome Measures

- Shall be assessed via the AMP app daily for 1 week and then at least every other day for 1 month and then 1x/week for 6 total months.

15. Smart Devices

- It is also worth considering the addition of remote patient monitoring through smart devices such as Apple or Garmin watches (for heart rate, stress, sleep) or Oura rings with real-time input directly to the AMP patient app.