



Major Autohemotherapy (MAH) - IV Drip

What is Major Autohemotherapy IV?

Ozone is a gas consisting of three oxygen molecules in an unstable structure. It is the smell that often precedes or follows a summer rain. The gas was discovered in the mid-nineteenth century by Christian Schonbein who published *The Production of Ozone by Chemical Means*.

In the 1940's Kleinmann first demonstrated the bactericidal properties of ozone using the ozone generator constructed by Werner von Siemens who built the first technical ozone generator. Nikola Tesla built the first patented ozone generator in 1900. He made ozonated olive oil and sold it to doctors. E.A. Fisch, a German dentist practicing in the early to mid 1900s, first used ozone therapy. It has been in use in Europe since that time.

Many, many articles have been published about ozone therapy. Most of the research articles are in Russian, German, Italian, or French. The most extensive modern writing on the subject has been done by Velio Bucci, MD, who is an emeritus professor of the University of Siena, Italy. His book, *Oxygen-Ozone Therapy: A Critical Evaluation* is undoubtedly the most comprehensive publication available to explain the possibilities of the therapy. He has also published over a hundred articles for which the abstracts are available on Pub Med.

Mechanism of Action of Ozone

As it enters the blood, ozone dissolves and decomposes into reactive oxygen species—hydrogen peroxide, superoxide anion, and hydroxyl radical. These substances are all reactive and all have a short half-life. Since ROS have their own toxicity it is great that animals and humans have built in antioxidant systems and substances in the blood namely, uric acid, ascorbic acid, albumin, vitamin E and bilirubin as well as intracellular enzymes such as SOD, catalase, glutathione peroxidase, glutathione reductase, glutathione transferase.

The human system also has the redox system of glutathione, which includes in its regeneration system, the enzyme glucose 6-phosphate dehydrogenase.

Because of this, it would be contraindicated to use ozone therapy in anyone with a G6PD deficiency.

Hydrogen Peroxide is formed from the action of the ozone entering the blood and it enters the cells to perform several functions. In the RBC it shifts the hemoglobin dissociation curve to the right to facilitate the release of oxygen. Leucocytes and endothelial cells are induced to produce interleukins, interferon, TGF, and nitrogen oxide. Platelets are induced to release growth factors, and all cells are made stronger through the need to stimulate the efficiency of their antioxidant systems. Another effect likely is the activation of endogenous stem cells.

Ozone Uses

Ozone therapy has applications when used rectally, vaginally, topically, or intravenously. MAH is the common method and is administered intravenously. Blood is withdrawn from the patient and is infused with ozone before re-injection. The IV bag contains equal parts blood, normal saline, and ozone gas. MAH has powerful immune effects and stimulates the production of white blood cells. It can be used to treat a wide array of conditions including viral, fungal, bacterial infections, autoimmune conditions, heart & circulatory disease, lung disorders, arthritis, cancer and HIV.

Uses

- Nutrient Depletion
- Fibromyalgia & Chronic Fatigue
- Lyme Disease
- Chronic Infection (Bacterial, Viral, Fungal, HIV, CMV, EBV, HSV)
- Autoimmune Disease (MS, Rheumatoid ARthritis, SLE, etc.)
- Cancer
- Heart & Circulatory Disease



- Patient's Whole Blood
- 0.9% Normal Saline
- Calcium Stock
- Heparin

- Increased bleeding time due to heparin (half life of heparin is 1.5 hrs)
- Irritation or bruising at IV access site

- Hemolysis if G6PD deficiency
- Detox reactions: headache, body ache

MAH is performed by extracting blood and infusing ozone to the normal saline bag, which is then returned back into the body through the same vein it was removed from.

30-45 minutes

If you have any questions, please contact us at
(604)738-1012, ext.1

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