Creating a better way is the task given to us in all creation

Hi Dose O3UV

A new paradigm - Innovation in Ozone and UV Therapy

The success of ozone therapy

From a practitioner standpoint the questions regarding ozone therapies are multiple.

- For what conditions does ozone work?
- How many treatments does it take?
- Is rectal ozone as good as putting ozone in the blood?
- What is the correct dosing?
- How often should ozone therapy be used?
- How much is too much, how much is too little?

I have been privileged to teach hundreds of physicians about ozone therapy and tens of thousands of others through YouTube videos. I have attended and participated in trainings at scores of ozone conferences from the Ukraine to Japan, from Dallas to Idaho. At many of them I have spoken about the benefits of ozone and UBI.

The goals of any teacher is two-fold. 1) To thoroughly understand your subject matter 2) Present it in such a way that the hearer will be able to grasp and use the content. Again, I have been privileged to meet and even teach alongside some of the world's great names in ozone, Dr Vellio Bocci, Dr Adriana Schwartz, Dr Frank Shallenberger and Dr Robert Rowen. There are many others who continue to contribute to the information on ozone therapy.

I think that I was born to create. At 14, I saw a bicycle with a lawn mower gas engine motor mounted on it. It became my project for the summer. With a little help, it worked. As a young entrepreneur I start my first major business at 25. It was doomed for failure from the start but I worked hard, lost and learned. At 57 years old and after 16 businesses I looked into UBI (Ultraviolet Blood Irradiation) and then into ozone therapies. I was stunned that such simple procedures could bring such marvelous results. You can see some of the fruit of my labors at www.drsubi.com and www.drsozone.com

Ozone works…. UBI works.

When you combine the two there is a synergistic effect in healing the body of a number of chronic and acute disorders.

Chronic fatigue. Fibromyalgia, Infections Shingles, Circulatory issues, Lyme and the list goes on. Why does ozone and UBI work on such a large array of disorders? Both of these therapies are immune modulatory. Stimulating the immune to do what it should be doing is often what was needed. There are also reports of repressing an over active auto-immune disorder.

A Canadian start up, venture capital company called Vasogen gave us a treasure house of data regarding the efficacy of these two therapies combined. You can see it at my YouTube UBI and Ozone together. Neither therapy has enjoyed full acceptance in the United States although there are an estimated 500 physicians in the US using either UBI or ozone or both.

From this biotech start-up firm and their spending $ 225 million we have 24 process patents, and many published studies. They left for us an impressive stack of over 60 studies accomplished over the last 15 years starting in 1990. Scores of physicians from prestigious centers were used. These detail extraordinary results of UBI and ozone therapies being used together. If anyone would take the time to study these results, they would never want to just use ozone alone. The results are overwhelmingly conclusive.

These New Studies Show that the O3UV combination therapy has significant impact on:

- Graft vs Host
- Growth Factor TGF-β1
- Vasospastic Disorders
- Endothelin Related Disorders
- Many forms of Inflammation
- Blood Brain Barrier Modulation
- CLL - Chronic Lymphomic Leukemia
- Blood Platelet Inhibition
- Auto Immune Disorders
- Increasing Nitric Oxide (vasodilation)
- Traumatic Pain Disorder (RSD)
- Preconditioning Stress
- Atherosclerosis
- Chronic Heart Failure

Unfortunately for Vasogen investors, their Phase III FDA trials failed. They conducted a 2,414 patient study on NYHA Class II thru IV chronic heart failure (CHF) patient. They administered a total of 8 treatments per patient with only 10cc of blood. In the end, the study results did not show statistical significance. In Class II CHF patients the therapy reduced deaths and hospitalizations by 39%. This was still not enough to see the company recover. Dr Bocci even wrote a response as to why it failed.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3231820/

"No Physician should just be using ozone therapy alone"

O3UV may not be perfect for CHF but Vasogen's 60 plus patent studies are invaluable. These studies gave proof to the medical efficacy and action of O3UV. The similarities allow us to carefully but confidently accept their work as a major piece in understanding and validating O3UV.

This should have tremendous impact on every physician who looks to validate this therapy. If desired, I have spent over 100 hours collaborating all of the patents into a convenient PDF file.

The success of 10 pass Ozone

In the world of ozone therapy, a dose of ozone is measured by concentration of the ozone (gamma or mcg/ml) multiplied by the volume of said dose (cc which is also ml). This multiplication gives us the dose in µg = mcg = micrograms. A 1,000 micrograms equal 1 milligram. Mcg is commonly used in the US medical community. As an example, 30mcg/ml X 60 ml = 1,800mcg of ozone.

MAHT is Major Autohemotherapy – a primary ozone therapy of combining ozone and blood and then reinfusing. Also known as MAH

Common MAHT levels promoted

USA - Common Ozone training	**3,000 µg**
German - Ozone in Medicine	**4000 µg**
Madrid Declaration	**6,000 µg**
Russian - Ozone in Practice	**9,000 µg**
USA - O3 Applications Book	**11,250 µg**
USA - 10 Pass Therapy	**140,000 µg**

According to the Madrid declaration a common high dose of MAH (ozone in blood) would be 60mcg/ml (concentration) of ozone and put in a volume of 100cc of ozone. This is put into 200cc of blood or 60 X 100 = 6,000 mcg of ozone. The Russians will call for a higher concentration for certain therapies "Ozone doses of 8-9mg (8,000 – 9,000mcg) are administered in acute stage of infectious hepatitis…" http://drsozone.com/wp-content/uploads/2014/02/Russian-ozone-therapy-in-practice.pdf

Hormesis *- The phenomenon or condition of a substance or other agent having a beneficial physiological effect at low levels of exposure even though toxic or otherwise harmful at higher levels.*

The Germans call for even lower doses claiming a hormesis effect as most beneficial claiming that a 30 µg/ml at a volume of 50 cc is optimal. (1,500mcg), although they do say that 4,000 mcg/ml can be used.

Interestingly the common training by a major trainer of ozone calls for 45mgc/ml in 60ccs of ozone. Or less than 3,000 mcg (principles of ozone therapy. Principles and Applications of ozone therapy - Shallenberger

The challenge came from a professor Lahodny. The Austrian gynecologist is the creator of the OHT/10 pass method. (OHT, or "Ozonhochdosistherapie" in German). Basically, high dose ozone.

Dr. Lahodny found through self-experimentation using a pressure/vacuum generator that a much higher dose would be safe for Major Autohemotherapy. He decided to use 200cc of blood and add 200ml of ozone at 70 mcg/ml in a solid bottle. Suck the blood in – add heparin, add ozone and reinfuse, 10 times. Therefore, you pull out 2,000 ml of blood and add 140,000 mcg of ozone over a period of 1 -2 hours.

Drs Rowen and Robbins have been promoting the 10-pass system. An estimate would be about 100 physicians around the USA are now using the therapy. Although there are some drawbacks (vein access, personnel time spent) the claims are that it works and without side effects.

Where low dose ozone had failed, a high dose ozone was a success.

What were the results? Many said astounding! Where low dose ozone had failed, hi dose ozone was a success. The draw back was the cost of the machinery, the complexity of the procedure, the time that it took for a technician or physician and then of course the cost to the patient. Many physicians just did the normal ozone and UBI treatment first as it was lower cost and had good results. For the difficult-to-get-results patient, if they could afford it, they use 10 pass ozone or what was called Hyperbaric ozone. HBO3

Is MAHT (at low levels) worth doing?

After some interesting banter on a yahoo group Dr Rowen said this. "***All I care about is getting the patient the treatment they need, whether DIV (direct intravenous ozone) or HBO3 (10 pass) "I consider gravity (fed) MAH (ozone and blood) almost worthless compared to the other two methods."***

Dr Howard Robbins agrees and **says "Lastly, in my opinion, why waste your patient's veins, time, effort and money with MAH? It is a therapy proven to help everything but eliminate nothing."**

Those are strong statement that are not agreed upon by all ozone therapists. But are they right? They claim that 10 pass is helping some of the more intransient cases and no one is getting hurt.

After talking to a number of physicians who have been doing 10-pass for a year, I do believe that it is the case. HBO3 or 10-pass is what prompted me to look into the process and think about how to add UBI to the process. Because speed is desired in the 10-pass system it is not conducive to using UBI. UBI needs a set exposure time to derive benefit to the patient.

Hyperbaric Ozone

Hyperbaric (hy·per·bar·ic) - involving a gas at a pressure greater than normal.

After watching the 10-pass process, I wanted to make a simpler high dose ozone system that incorporated UV light therapy. I played around for a couple of days designing a system using a 1,000 ml evacuated bottle, a pressure regulator and an ozone generator made to take the pressure. It has been commented that pressurized ozone is better than regular pressure ozone. "It gives more pop to its energy" or something similar.

After a bit of research looking at chemical reactions under pressure, you can see that there is a difference. Here is the official comment from dummies.com (and other places)

"The **pressure** of gaseous reactants has basically the same effect as concentration. The higher the reactant **pressure**, the **faster** the **reaction** rate. This is due to the increased number of collisions."

So yes, blood will react with ozone a bit faster when the ozone is under pressure. It does not change the components of the reaction, just the speed. This potentially increased speed for ozone is superfluous. What is faster than 40 milliseconds? - 30 milliseconds?

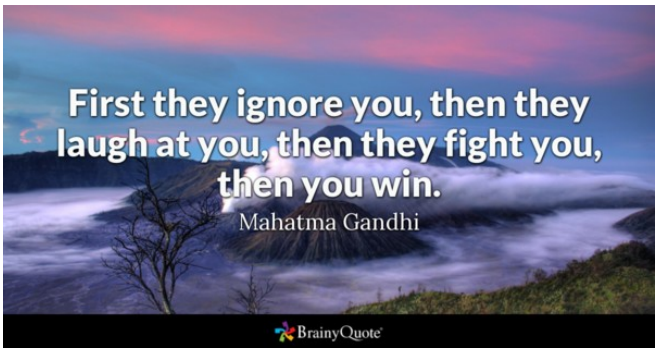
I also found that when you put ozone under pressure it reacts with itself faster and turns to oxygen faster. I wondered why the ozone coming from the generator measured at 70 mcg/ml but when put under pressure in the 250ml bottle of distilled water (200cc of liquid) it registered a bit under 60 mcg/ml.

This increased pressure may be causing the concentration of the actual ozone under pressure to drop in just seconds. So, 70 gamma under 10 psi (.71 bar) appears to be dropping to an effective concentration of under 60 gamma. This is my observations to date.

Information on Hyperbaric (HBO3) or 10 pass ozone:

- The ozone concentration to the blood is potentially a bit lower than anticipated.
- The pressure has no real effect on the biological/chemical reaction with the blood components which is already very fast.
- Another area of concern is the ozone gas volume that is put into the bottle according to pressure calculations and space in the container indicates that there is less than 200cc of ozone being added even under pressure. This is yet to be tested.

But it is still an innovative system and seems to have improved results on some conditions.



One big question that I had was

How much ozone can a cc of blood hold?

Bocci was right – Blood can absorb a lot of ozone. Until now no one knew how much.

In October of 2017 a team of researchers set out to find the limits of ozone in regular blood. Measuring ozone products in blood is not an easy task. The therapy of ozone is in its awakening/stimulating the immune system. Few direct measurements can be made. To see if ozone is working we commonly look to the response of the body.

When ozone is added to blood it combines not with the red blood cells but with the biological fluids and PUFAs bound to albumin. According to Bocci

"...because **ozone, being a potent oxidant, REACTS IMMEDIATELY with a number of ions and biomolecules present in biological fluids, namely antioxidants, proteins, carbohydrates and**, ***preferentially, polyunsaturated fatty acids (PUFAs) bound to albumin***. In fact phospholipids and cholesterol present either in cell membranes or/and lipoproteins are shielded by antioxidants and albumin molecules (Bocci and Di Paolo, 2009; Travagli et al., 2010b) Velio Bocci

Bocci, V. Ozone a new medical Drug, second edition 2010

Bocci, V., Di Paolo, N., Borrelli, E., Larini, A., and Cappelletti, F., 2001b, Ozonation of blood during extracorporeal circulation II. Comparative analysis of several oxygenators-ozonators and selection of one type, *Int. J. Artif. Organs* 24:890–897.

This instant reaction means that the ozone is gone in seconds if not milliseconds. No ozone remains and travels through the body, only the products of the chemical reaction.

But how much is too much?

At what level will excess ozone cause problems within the blood?

In our "Ozone and Blood" experiment, we wanted to discover when and if the red blood cells would be damaged and the excess level of ozone that would cause white blood cells and T cells or other blood products to be negatively affected.

One of the team members was an experienced live blood cell analyst. He has examined thousands of patients slides who had every kind of disorder or disease imaginable. His expertise was easily recognized by all present as he looked and commented on the pre-ozone blood samples.

The experiment was quite simple. We took 20cc of blood from a donor and keep adding measured concentrations and quantities (doses) of ozone.

We added 20cc of 75 gamma ozone. Then we looked at the blood to see if there was damage. The following chart gives equivalent dosages depending on the amount of blood used. We always used 75 mcg/ml for the concentration to simulate the 10-pass system.

Live Blood Analysis

10/11/2017

Where are the upper limits where ozone is harming the blood components?

	Blood	ozone cc	mcg/ml	total ozone	equivalent mgc in larger quantity of blood		
sample	20				60cc	300	400
1		40	75	3000	9000	45,000	59,940
2		40	75	6000	18,000	90,000	119,880
3		40	75	9000	27,000	135,000	179,820
4		40	75	12,000	36,000	180,000	239,760

Sample 1 – totally safe Sample 2 – totally safe Sample 3 – still safe but some trauma

Sample 4 – Lysing of RBC occurs (See the report at the end of this document)

What does this mean? To an aliquot of 300mls of blood, I can add 90,000 mcg of ozone, safely. When reinfused back to the patient it can be a very effective therapy. I could probably add 135,000 mcg and it would be moderately safe. At the same time, I can run the blood by the UV light giving a double therapy.

Now a system to deliver this needed to be designed

Thanks to all of the innovators of ozone therapy…it is time to go beyond

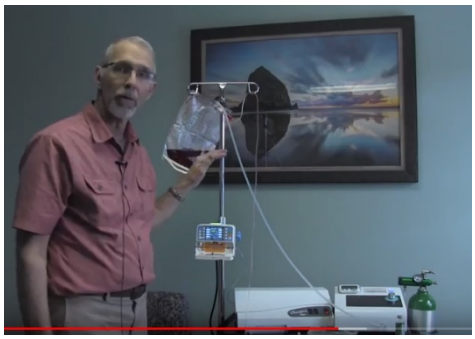
Hi Dose O3UV

- No additional expensive equipment required – just an infusion pump
- All accomplished in 40 minutes
- Get the benefit of UBI+ and 70,000mcg of ozone (5 pass equivalent)
- One easy procedure
- No high-pressure system
- Totally safe - you can attend to others at the same time
- Uses 300cc of blood drawn up by infusion pump.
- More effective than ozone alone
- Easier, cheaper, faster, safer

The real key was designing a bag that would allow for blood input, ozone input and mixing and then a way to reinfuse to the patient. This has to be accomplished in a relatively short period of time. Another key was the idea to use an infusion pump. For those of us who have withdrawn blood from patients you realize how tedious this can be. Using an infusion pump takes all of the work out of the procedure and it does this much faster than a normal 60cc syringe pull.

Abbreviated Protocol for Hi Dose O3UV – Best of both worlds O3&UV

An Admin set – 15 - 20 drop/ml
19g – 21g butterfly or cath with extension
Ozone generator – ¼ L @ 70mcg/ml
UBI materials – cuvette, machine
Infusion pump
Heparin
100 ml of saline
Plastic forceps
60 or 100cc syringe
18g needle for the syringe
1500ml Hi Dose O3UV bag



3-way valve

Write info@sopmed.org and ask for the video protocol.

The procedure is simple. With the above materials and machines this therapy should take 40 minutes. This is an abbreviated procedure

1) Attach the bag/spike port to the admin set to the cuvette and 3 way valve and prime with saline.
2) Add 5,000 units of heparin to the bag
3) Insert the cuvette in the UBI machine and the line in the infusion pump. Turn it on.
4) Access the vein with a 19g needle – attach to the cuvette line and pump 300 cc of blood into the 1500ml bag.
5) Purge the lines with saline via the needle port
6) Add 1,000ml of 70 mcg/ml ozone through the bubbler tube into the blood. (special luer attachment)
7) Turn the line in the pump so it pumps to the patient and reinfuse back to the patient.

This new method deserves investigation. 10 pass has its limitations. This new system has the potential of revolutionizing ozone and UV therapy…forever.

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Sample 1 Subject X 20 cc blood with .2 ml heparin added and 40cc at 75 gamma ozone: total ozone = 3000 mcg
More platelet formations present on venous blood in mild to moderate amounts. Red cells stacked more than control with less movement. Healthy T cells still present along with eosinophils. Ghost cells present and damaged white cells evident in mild amounts. **No evidence of hemolysis of red cells.** Stacking of red cells moderate level. Mild mycoplasma markers.

Sample 3 Subject X 20 cc blood with 120 cc at 75 gamma O3 total ozone 9000 mcg Blood moving much slower, **lysing evident at moderate levels in some portions of the slide**. Aggregation present moderate to severe levels. Mycoplasma markers still evident throughout. White cells still at same level with no changes evident.

Sample 2 Subject X 20 cc blood with 80cc at 75 gamma ozone: total ozone 6000 mcg Mycoplasma markers showing up now at more definite levels throughout sample, not just peripheral margins**. Platelet formations still at mild to moderate levels.** Red cell linkage present. Movement of cells is improved over last sample. T cells and eosinophils at same level. White cells gathering around platelet formations at increased levels. Blood showing trauma on small portion of slide, cells are not moving and clumped.

Sample 4 Subject X 20 cc blood with 160 cc 75 gamma ozone: total ozone 12000 mcg
Cell aggregation has further increased. Movement very slow. White cells appear more reactive with interior granules are moving at a higher rate, perhaps in response to increased rate of cell destruction. More mycoplasma markers also in evidence. **Lysing has increased in speed and amount, more than 20% of sample.**