

MILD HYPERBARIC OXYGEN [MHBO] FOR AGING SKIN AND FOR IMPAIRED REPRODUCTIVE FUNCTION

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Recent studies of ours have shown that immune function [natural killer cell function and apoptosis] improves in a significant number of patients after treatment with mild HBO. Specifically, apoptosis, a measure of programmed cell death, showed a decrease [i.e. reversal of the aging process] (1).

Some of our patients reported a more youthful skin and regrowth of scalp hair after HBO. This is why we embarked on a study of skin and hair growth in patients with a history of toxic chemical [pesticides, mycotoxins, others] exposure. These patients subjectively describe, and complain of, premature aging.

We have taken high-resolution

photographs of facial skin [for wrinkles] and scalp [for hair growth] as a base line. The patients were then started on HBO therapy and will have follow-up pictures taken at intervals.

We found a number of years ago that patients develop sperm abnormalities in count, shape, and function after toxic chemical exposure, thus potentially impairing their fertility (2). No successful treatment is available for this abnormality. This is why we started to study the effects of HBO on sperm morphology and function in these patients.

mHBO therapy was administered according to a protocol published earlier (3). This

treatment protocol resulted in improvement of functional SPECT brain scans (3), attention and reaction time (4), and immune function (1) in patients with impairment of function after toxic chemical exposure. The findings on the above subjects were presented as posters at previous anti-aging conferences in Las Vegas (5) and (6).

Follow-up sperm analysis will be done about two months or longer after mHBO treatment was terminated.

At this time our results are very preliminary, but promising. We hope that mHBO treatment will improve skin and hair growth as well as the quality of sperm.

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Sperm Data

	Before HBO	After HBO	NL
Sperm Count (million/cc)	12	70	60-150
Abnormal Morphology %	91	75	<40
Hamster Ova Penetration Assay %	4	18	>20

Other Sperm Parameters

Before mHBO	0	0.5	1	1.5	2	2.5	3	3.5	4
Sperm Attachment to Ova	0	0.5	1	1.5	2	2.5	3	3.5	4
Sperm Motility in Culture	0	0.5	1	1.5	2	2.5	3	3.5	4
Sperm Survival in Culture	0	0.5	1	1.5	2	2.5	3	3.5	4

Sperm parameters in vitro have been graded on a scale of 0 (none) through 4 (excellent)

After mHBO	0	0.5	1	1.5	2	2.5	3	3.5	4
Sperm Attachment to Ova	0	0.5	1	1.5	2	2.5	3	3.5	4
Sperm Motility in Culture	0	0.5	1	1.5	2	2.5	3	3.5	4
Sperm Survival in Culture	0	0.5	1	1.5	2	2.5	3	3.5	4

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Skin Changes



Before mHBO

After mHBO

LEGEND

Wrinkles (on forehead) are attenuated after Only 10 mHBO treatments.

LEGEND

mHBO improves brain function: Side view of brain shows decrease in blue color (= abnormal) after only 10 treatments (see Ref. 3)

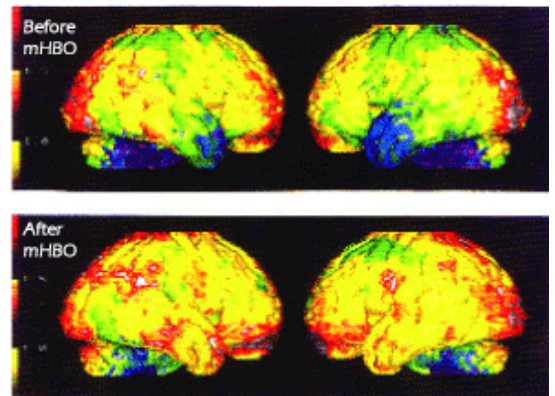


Figure 2

Patient 2

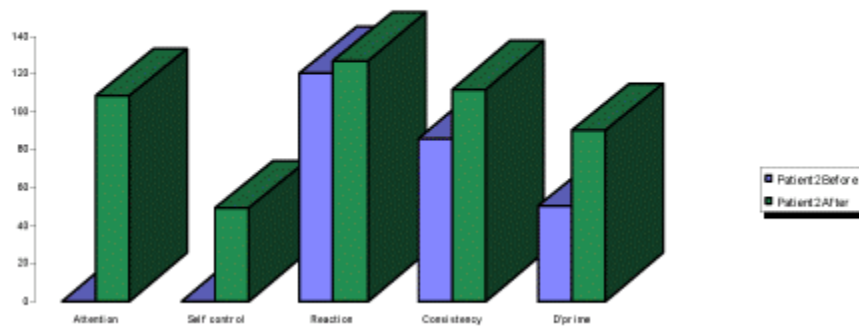


Figure 2. Scores of patient 2. Blue bars represent scores of the TOVA test before the mHBO and green bars represent the scores of the TOVA test after ten one-hour sessions with mHBO.

LEGEND

mHBO improves brain function: Attention span and reaction time (as measured by T.O.V.A. test) get better after only 10 treatments (see Ref. 4).