

**Little Michael's Development Had Stopped  
- It Was Called "Childhood Autism" -  
Until Hyperbaric Oxygen Therapy!**

The information which follows herein has been given to the National Office of the American College of Hyperbaric Medicine which maintains archival information in the form of professional articles, communications to medical journals, and more informal reports of the experiences and findings of professional persons who have been working with hyperbaric oxygen. It is hoped that the information contained herein will stimulate interest in professionals in large medical centers with departments of hyperbaric medicine, to the end that controlled studies involving large groups may validate the findings reported here.

Little Michael was almost three years of age, but seemed somehow like a little old man. He was a puzzle to his mother. He would not talk, avoided all eye contact with others, and was disinterested in his environment or what was happening around him. He was content to sit most of his day, like the proverbial "couch potato." He was not alert, but could not be said to be drowsy either.

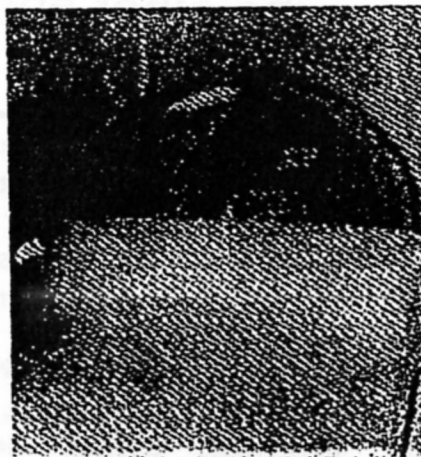
**"Childhood Autism?"**

He could best be described as inattentive. To look into his brown eyes gave one the feeling that there was no one in-



Above: Dr. Francis Coy is seen here in the hyperbaric chamber with Michael. First treatment day.

Below: After 19th treatment. Michael is developing a sense of humor, and smiling often. Here, he stands up in the hyperbaric chamber in order to make eye contact with others, and wave a hand!



side who cared if he made contact with those around him. The term "childhood autism" is the nightmarish terror of parents in this situation. Reading up on the subject is no help, considering the psychiatric speculations regarding ego-centered independence covering delusions of a self-sufficiency which excludes any need for contact with others, and condemns the child to a life of omnipotent fantasies with absolute withdrawal from the real world.

**Birth Trauma?**

Still, was it possible that there was a *physical* reason for his behavior? There was a question of birth trauma, but in the absence of straightforward neurologic signs or a seizure disorder, doctors were reluctant to attribute brain damage or even brain dysfunction as the reason for Michael's failure to thrive. Beyond one pediatrician's counsel to try mineral oil for the child's problem of constipation, no recommendations were forthcoming from doctors, except to give matters time to work themselves out. Meanwhile... [Cont'd on p. 2]

## Michael Responds to Hyperbaric Oxygen

[Cont'd from p. 1]

Michael was almost three years old, and seemed trapped at the developmental level of less than one year of age. None of the usual markers of childhood development seemed to apply here. He could get older, but he seemed unable to progress in his development. If nothing changed, it was entirely possible that Michael could be doing the same things at twenty-five years of age, and older. In a word, Michael was "stuck."

### Uncertain Arena

It was into this arena of great uncertainty that Francis Coy, M.D., was determined to enter. After all, he was the boy's grandfather, and he was a medical doctor. His expertise was in anesthesiology, and he was retired. He knew instinctively, however, if he did not enter this arena, then little Michael in all likelihood would remain fixated at his level of development, and for the foreseeable future. Dr. Coy brought the child, and the Mother, to see Dr. James Parsons in consultation. The history of the child was obtained, and voluminous medical records were examined. It appeared that every possible test had been done. In all the studies that had been per-

formed on the child, there was no firm diagnosis that would explain the arrested development. The question of birth trauma seemed to offer the only possible explanation for the child's behavior. Dr. Parsons remarked: "Strokes can cause profound behavioral change, even in the absence of neurologic signs or paralysis. A withdrawal and an expressive aphasia such as we see, could derive from a stroke secondary to birth trauma. He cannot tell us

---

"He cannot tell us how he feels. It is possible that Michael had a stroke coming into this world. It is much more common to suffer a stroke at the other end of life."

---

how he feels. It is possible that Michael had a stroke coming into this world. It is much more common to suffer a stroke at the other end of life."

If we were dealing with a stroke in Michael's case, then hyperbaric oxygen therapy (HBOT) would be the treatment of choice. Dr. Coy and

Michael's Mother were informed that to administer HBOT to Michael would be an investigational procedure, but there seemed no other treatment that could be recommended. If HBOT were to be done, no guarantees could be made.

### Improvement as "Proof"

We would be trying a procedure which is quite effective in stroke treatment, but would not have "proof" of a stroke unless and until real improvement was achieved. Improvement was defined as realization by Michael of eye contact with others, interest in other people, development of smiling behavior and normal sense of humor for a child about three years old.

### The Experience

Dr. Coy agreed to accompany little Michael into the hyperbaric chamber each time for his treatment. There was no problem with Michael's getting into the chamber, and no complaint relative to the treatment. There was some concern beforehand as to whether Michael would adjust to the changes in atmospheric pressure inside the chamber, considering that the child had no understanding whatever of what was desired to be accomplished. However, Michael adapted quite

Michael, Cont'd . . .

well to the chamber. The changes in pressure are quite similar to the feelings one has in a jet plane at different altitudes. Michael did not cry during the treatments, but on occasion he was "fussy." It was apparent that Michael was improving in his mood level within the first 10 treatments he received. He began actually to look at others, and occasionally to smile. Looking into his brown eyes now gave one the feeling that little Michael was becoming "in contact" with others. Now he was also developing a sense of humor. He laughed when others did. When he came for his HBO treatments he recognized, smiled and acknowledged staff members. He is participating in speech therapy, and we are optimistic that he will talk soon. Those who know Michael are confident that hyperbaric oxygen made the difference. From time to time, we will endeavor to update you on Michael's progress, a little boy who is turning out *not* to have "childhood autism" after all!

## BULLETS

Using hyperbaric oxygen treatment may help optimize thrombolytic drugs and save lives in myocardial infarction, say researchers from the Long Beach Memorial Heart Institute, California.

## "Idling" Neurons vs. True Brain Damage

Conventional wisdom holds that brain damage, once it has been sustained, is permanent and irreversible. However, the article, **Enhancing "idling" neurons**, Neubauer, *et al*, THE LANCET, 03-03-90, points out that a special test called SPECT scanning has shown a zone of stunned (idling) neurons in a stroke patient of 14 years. Many of these idling neurons were enhanced and restored to active service by hyperbaric oxygen therapy (HBOT).

What are we saying here? Specifically, that a stroke patient has perhaps only a small area of brain tissue that is dead. Much of the dysfunctional brain tissue is stunned by lack of oxygen (blood supply). These brain cells are not doing their job, and so the brain is impaired in function. To be sure, there are some dead brain cells involved in any stroke, but not nearly of the scope formerly believed. There is a great potential for recovery of stroke victims, even after many years.

In a woman of 60 years, who had a right middle cerebral artery infarction 14 years before, SPECT brain scans repeated within 4 hours time frame before and after only a one hour exposure to hyperbaric oxygen at 1.5 atmospheres absolute showed that a significant area of the brain

thought to be dead or irreversibly damaged, was alive! The SPECT scan showed increased activity in that area of the brain, after only one hour of hyperbaric oxygen. Thus encouraged that the neurons were "idling" (and not dead or irreversibly damaged) the hyperbaric physician gave a total of 60 hours of hyperbaric oxygen. The results were reduced spasticity, improved ambulation and

---

"To be sure, there are some dead brain cells involved in any stroke, but not nearly of the scope formerly believed. There is a great potential for recovery of stroke victims, even after many years."

---

speech, and cessation of drooling. The fact that the stroke in this patient was of 14 years' duration, suggests very strongly that when hyperbaric oxygen is involved, we should no longer rely upon the old "knowledge" that all stroke impairment is permanent brain damage, to be accepted by the stroke victim as irreversible.

NCBI PubMed

PubMed QUERY

8072162

Other Formats:  Links: [Order this document](#)*Masui* 1994 Jun;43(6):947-50**[Hyperbaric oxygen therapy in the Hokkaido University Hospital].**

[Article in Japanese]

**Okamura A, Ishikawa M, Yokota S, Saito Y, Oba J, Sugimoto H, Mayumi T, Kemmotsu O**

Department of Anesthesiology, Hokkaido University School of Medicine, Sapporo.

We surveyed the hyperbaric oxygen therapy during the past seven years in the Hokkaido University Hospital. The mean number of patients was 27 per year. The average number of the therapy was 328 per year. There were neither complications nor accidents attributable to the hyperbaric oxygen therapy. Three representative diseased states hypoxic brain damage, sudden deafness and occlusion of retinal arteries, showed remarkable recovery by this therapeutic modality. A safety standard has been revised in 1991. We have been operating the hyperbaric oxygen therapy according to the revised standard. The inter-departmental approach in this therapeutic modality is mandatory in order to achieve effective outcome.

PMID: 8072162, UI: 94351900

---

the above report in format  
documents on this page through Loansome Doc

---