



Oxygenate yourselves! -The Hyperbaric Centre Magazine

N. 29 –September October 2016



In 2010 the Hyperbaric Centre of Ravenna started a new experience with the blog www.iperbaricoravennablog.it. The aim of the blog was to share the stories of the patients because we believe that the solution to the of one person is the solution to the problem of so many others.

This experience led to "Oxygenate yourselves!", The blog magazine of the Ravenna Hyperbaric Centre. The magazine is a new tool to read and preserve the most widely read stories. This number contains the articles most-read in September and October 2016.

Enjoy the reading!



Raffi and his mum Cristina face a big challenge with the hyperbaric oxygen therapy as ally

Today we tell you a story that involves Raffaele, his mother Cristina and their great strength, which help them every day to face their difficult situation.

Everything began 3 years ago: Raffaele was 11, he had just finished primary school and he was in Ostia with his family playing in the pool. Raffaele was an expert and awarded swimmer and Cristina was confident with him swimming by himself for some time.

Unfortunately while he was alone something really unpredictable happened. In a short amount of time Raffaele had 3 heart attacks which made him drown. Raffaele had a congenital heart defect, but no one in his family could know.

"Everything happened in an instant, the world collapsed around us".

Raffaele was in a coma for 2 months when his mum hope began to falter. Doctors were sure there was no way Raffaele could recover but Cristina decided she wouldn't give up, she wanted to try every possible treatment in order to save her kid. So she reached out to a doctor in San Diego (USA) who treated cases similar to her son's.

The doctor didn't want to create false hopes, but after he studied Raffaele's medical records, he suggested Cristina to try with hyperbaric oxygen therapy. Cristina planned the trip: 14 hours flight followed by a 2 hours car ride, a very difficult journey for Raffaele who had been living in a hospital bed for months.

After the treatment Raffaele improved. The doctors recommend that Raffaele continue the therapy back in Italy and associate it with other rehabilitation therapies.

Raffaele is stuck between two dimensions, trapped in a world different from the one we live in: he can't communicate by means of words or gestures but sometimes he can hear or understand something and he tries to reply through emotions, using alternative energy levels.

Once back from the States Cristina realized she could have done a much shorter travel: she found out about the Hyperbaric Centre of Ravenna and

she met doctor Pasquale Longobardi, who was ready to help Cristina and Raffaele through this difficult rehabilitation path.

Dr. Longobardi developed a treatment for Raffi which is spread over three intensive weeks to be repeated three times a year. In this way they can come from Rome and settle down for short periods during which Raffaele carry on with the sessions of hyperbaric oxygen therapy and follow many other activities and therapies that aim to help him improve: acupuncture, aromatherapy, pet therapy, physiotherapy in the pool, colour therapy, crystal therapy.

"I am aware of my son's situation but I will try everything to enable him to have the best life possible, I am not hoping for a miracle."

To follow the treatment defined by Dr. Longobardi and to give hope to Raffi, Cristina decides to create a real team that support Raffi both in Rome and during his trips for treatment in Ravenna.

"We are a group that believes in teamwork, there is synergy, hope and a desire to break down the barriers that separate us from the dimension in which Raffaele is now. We are a team of professionals and everybody loves my son and firmly believes in the importance of doing everything possible to help him. They all put their hear in the work they do. There are three nurses from ASL Roma who take turns to assist Raffaele mainly with issue related to the tracheotomy, three therapists, two speech therapists, two paediatricians, an intensives physician and an audiologist. "

The group works with Raffaele day after day, Cristina coordinates the work of organizing semi-annual briefing to share common goals, to discuss the paths, to decide what to change or improve. "To pull Raffaele out of this parallel reality we must pull the rope all together". Raffi himself has realized that it is a team game and he follows all the people who help him and support him trying to do his best.

"For the whole family it was a big shock: it was hard to process what happened but now that some years have passed I the great affection that accompanies and supports us."

Before the accident Raffi was a big fan of Harry Potter, the bespectacled boy wizard was for him a true idol and he dreamed of doing spells, wearing a black cloak and waving a wooden stick. So Cristina asked her friend to give him a great gift: a mural on an entire wall of Raffi's room. In the

corner there are also the initials of Raffaele and his cousins who are always very affectionate.

Just by mixing these initial Cristina found two important words "Verdad" (Truth) and "Almas" (soul). Her father, is a native Spanish speaker, and for her these two words mean a lot and help her in dealing with this great challenge.

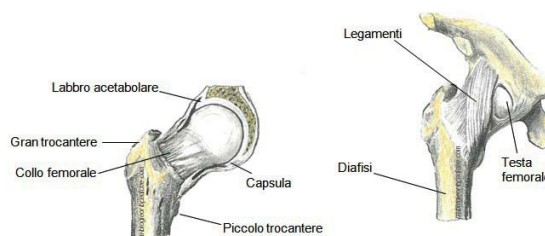
"In Harry Potter there is a bridge linking the magic and the real world. The team and I are kind of crossing a bridge with our work, and we are trying to make Raffaele crossing that bridge too"

Cristina works full time in a bank, and she has to make lot of sacrifices to coordinate all this work and to support all the expenses. When we asked what pushes her not to give up, she responds:

"I do it because I am alive. I want to do be fully alive, not a living-dead, and for this reason I want to do everything for him. Raffi is giving it all and I'm with him. A Buddhist motto says "turn poison into medicine" and so this is what I'm trying to do every day. "

This is a story of strength, love and courage. Good luck to Raffi and Cristina, two people from whom we must learn every day and that we value so much. We are happy to help and we hope with all our hearts that Raffi keep progressing. See you in a few months!

cancellous oedema at the femur: can the hyperbaric oxygen therapy help?



Hi, My name is Maria Teresa and I'm 56 years old. Recently I have been suffering of inguinal pain that spreads to the ankle. I did an MRI and the result says:

"On the left side discreet articular spilling and clear degenerative alterations of the limb with

a wide lesion of the edge and an advanced stage of chondropathy of the anterior region of the femoral head with a modest cancellous oedema; at the ground of the femoral epiphysis presence of small osteophytes. On the right side there is no spilling and light chondropathy without alteration of the edge of the acetabulum. No lesions to the hotbed. No relevant alterations of the soft parts."

I ask you kindly if in these conditions I might benefit of the hyperbaric oxygen therapy.

Looking forward to your response. Kind regards, Maria Teresa

Maddalena Vassura responds,



Dear Maria Teresa,

Thanks for contacting us. I am really sorry that you have to deal with this problem. The coxarthrosis is a degenerative process that affects the limb articulation and represents one of the most important forms of arthrosis either for its frequency in the population and because of the disability it can lead to.

It's a disease with a chronic evolution that involves the cartilaginous layer that cover the head of the femur and the cavity in which this is inserted (acetabulum).

The cartilaginous is a sort of "lubricant" that smoothen the bone surfaces to minimise the friction.

The deterioration of this protective layer causes in the first instance a chronic pain typically charged to the inguinal region and the anterior compartment of the thigh. Therefore, the damage is extended to nearby tissues which participate in the articular movements, in this way the pain increases and the breadth of possible movements is reduced.

When the layer of cartilage thins up to expose the underlying bone, the bone responds by thickening and producing "bone spurs" called

osteophytes or alternatively creating an edema at the level of the cancellous bone. The bone edema is symptom of a localized ischemia and of active repair processes. It usually has very long healing time (months) and you need to keep the area "in discharge" for the entire recovery period (use of crutches).

Given the situation, hyperbaric oxygen therapy could be a very valuable ally in your case, because it can significantly reduce the healing time of the tissue. In fact, it increases the portion of dissolved oxygen in the blood, allowing it to spread to the tissues more quickly and effectively. The oxygenation of the suffering tissue leads to the formation of new blood vessels, and to the stimulation of the cells responsible for the formation of new bone.

Generally, in cases like your own, an integrated approach, including hyperbaric oxygen therapy, magnetic therapy and physiotherapy is good to eliminate the painful symptoms and to slow the progression of the disease (thus postponing any need to resort to surgery).

At our center this therapeutic path is prescribed and authorized by the physiatrist, Dr. Fontana (the rehabilitation team coordinator).

I hope this was helpful
Best wishes

Maddalena Vassura
Physiotherapist

Kienböck's Disease, Salvatore asks for help



Hi my name is Salvo, I'm 30 and I'm from Palermo. Since I'm a motorbike mechanical I use often vibrant equipment. I fractured the lunate of the right wrist on January 2015 and after a year I was consequently diagnosed with the Kienböck's disease.

On June 30 of this year I had an intervention of forages. Up to today, I have already lost the 30% of my wrist extension capacity. From the x-rays that I did after the surgery, I was found to have an increase in density of the lunate bone.

Can hyperbaric oxygen therapy help me, or should I do another intervention?

Thank you. Best regards,

Salvatore

Dr. Claudia Rastelli responds



Dear Salvatore,

I'm really sorry you have to deal with this problem. Unfortunately, the reason at the ground of your disease might be the chronical trauma due to the vibration to which you are exposed so often. I recommend you to do an MRI of your wrist to study deeply the extent of the trauma.

Hyperbaric Oxygen Therapy might be very useful in case there is a residual oedema in the bone, because it helps with the absorption and it's good to ease the deposition of the new bone and to stimulate the neoangiogenesis. The therapy will also help to regress the lesion and it would prevent you to undergo another surgery.

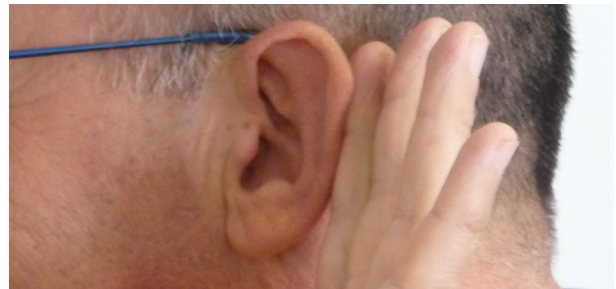
I suggest you to combine the treatment with physiotherapy. This would allow you to recover as much articular mobility as possible, given your young age and your job.

Best wishes,

Dr. Claudia Rastelli

Degree in Medicine and Surgery at the University of Ferrara. Order of Physicians of Rimini n. 2074

Sensorineural Hearing Loss due to barotrauma and Hyperbaric Oxygen Therapy



Hi, I write to seek advice. The following is a summary of my situation:

- On August 20th I had a barotrauma episode during underwater activity in apnea
- On August 25th I had my first visit with the ENT physicians. The diagnosis was barotrauma occurred in upwelling with single-side hypoacusia on the right ear with 70db on 600Hz deficit and approximately 65db on 800Hz (with light tinnitus). The treatment prescribed consisted of 10 days of cortisone.
- On September 9th, new check with ENT specialist found no changes in the hypoacusia. He prescribed me to continue with vasodilators and cortisone.
- On September 16th another follow up: no changes found in the hypoacusia. Continue with vasodilators for few months.

The ENT specialist told me about the possibility to try a treatment with hyperbaric chamber. I google hyperbaric chamber and barotrauma/hypoacusia and my understanding is that the effects of the hyperbaric chamber on this kind of accident

are maximised when the treatment starts few days/hours after the trauma occurred.

I wonder if, one month after the accident, the treatment can be effective. Do you have any experience in cases like mine? Have you treated barotrauma and hypoacusia on frequencies above 500Hz? And which result did you achieve?

Many thanks, Marco

Dr. Andrea Galvani responds

Hi Marco, thanks for writing us.



I'm sorry for your barotrauma, I understand how annoying the whole situation can be. In order to be objective in case like yours, it is necessary to

follow a careful and precise analysis of the medical documents (consultancies, therapies done, instrumental treatments...).

In general terms, I can tell you that, as your ENT physician already suggested it makes sense to investigate the possibility of doing a session of hyperbaric therapy (pressure 2.5 ATA, duration 90mins daily session, 15 initial sessions and 10 follow up session following ENT specialist assessment, in case the audiometric exam shows improvements).

Regarding the efficiency, as you already deduced from other posts, it is important to start the hyperbaric therapy as soon as possible to maximise the effects. Best of luck!

Regards,

Dr. Andrea Galvani

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Sudden hypoacusia, tinnitus and compensation problem



Hi, I write you in the attempt to find a solution to my problem. On August 18 2016 I had a sudden sensorineural hearing loss (SNHL) associated with tinnitus and a sense of being like stuffed with wool. On August 23 I visited the ENT specialist. He told me that it is a light sensorineural damage with a dip of 25db on 4000Hz frequencies and 55db on 6000/8000Hz frequencies. He couldn't find the cause of the hearing loss, but he prescribed me a therapy with Sulodexide pills and super Ala 800.

On August 28 I went for a consultation with another specialist who confirmed the diagnosis and scheduled a neuro-otological examination for September 1. The examination confirmed a cochlear and a loss of 25db on 4000Hz frequencies and 55db on 6000/8000Hz frequencies.

On September 29 I started a week treatment of Prednisone 25mg that led to a worsening of the tinnitus and no benefit.

As for today, I am carrying on with the Sulodexide treatment, even if from the blood tests it seems that the vascular problem is prevented.

So this is my story. I came to know about the hyperbaric oxygen therapy from the second ENT specialist, who had some reserves in recommending it to me given the difficulties in compensating that I experience every time during the landing process of the flights.

It has been a while since the hearing loss occurred and it doesn't seem to have a vascular nature. Does it make sense to start now a treatment with the hyperbaric oxygen therapy?

I also have a slight deflection of the nasal septum and historical problem in compensating during flights' landing phase (I tried everything: Naphazoline, swallowing, drinking water, eating and swallowing, blowing...). I usually feel my ears closed for up to 36 hours after landing.

Given my situation, would I suffer side effects from a hyperbaric oxygen therapy? Are you aware of effective methods to avoid these inconveniences?

Please, help me out. I can stand the tinnitus, but the feeling of "saturation" of the ears at 60db and hearing the voices as metallic, including mine, is unbearable.

Thank you, Mario

Dr. Andrea Galvani responds

Dear Mario, thanks for writing and entrusting us.

First of all, the hyperbaric oxygen therapy is actually indicated to attempt treating a sudden hearing loss. In these cases, it's usually recommended to do 15 sessions at 2.5 ATA of pressure for 90 minutes on daily basis. Therefore, it is recommended a follow up visit with your ENT specialist: if there is even a light sign of improvement, the therapy can be carried on with 10 more sessions.

Regarding your compensation problem, it's possible to prescribe the hyperbaric oxygen therapy with what is called "slow compensation". This means that it's possible to reach the therapeutic level of pressure in a very short amount of time to help people like you who have difficulties in compensating.

It is worth to note that in case of concrete impossibility to compensate it is possible to quit the

session immediately and without any problem arising.

Regards,

Dr. Andrea Galvani

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Sabrina went through a lot: can hyperbaric oxygen therapy help her?



Hi, I'm 45 years old. I would like to take advantage of your kindness and availability to expose my problem:

- In 1992 I had a twin pregnancy and a caesarean operation
- February 1997, ulcerative colitis of the rectum degenerated in toxic megacolon
- November 1997, total proctocolectomy with ileostomy
- February 1998, closing of the ileostomy and sudden surgery for intestinal occlusion due to adhesions and consequently intestinal resection
- In 2003, removal of Bartholin gland, resulting in vulvar anus fistula
- In 2010, salpingectomy (removal of left salpinges) due to adhesions

Now, I did an NMR which highlighted a big sack of 12 cm. Different doctors reckon that undergoing another intervention would be very risky to me. Which would be the best solution? Sabrina

Dr. Claudia Rastelli responds



Dear Sabrina, I'm really sorry for all the problems and the interventions that you had to go through in your life. Unfortunately, hyperbaric oxygen therapy is not applied in treating adhesions and it can't help with the sack that you wrote about.

The hyperbaric oxygen therapy can impact the vulvar anus fistula and help in your ground pathology, the ulcerative colitis of the rectum. The hyperbaric oxygen, through the synthesis of nitric oxide, reduces the capability of the with blood cells to damage the intestine and therefore helps with the inflammation of the endothelium and prevent the formation of perineal ulcers, improving finally the situation of the current lesion.

The sessions are repeated within a short time interval and they are associated with your ground therapy. Results are expected to be good.

Dr. Claudia Rastelli

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Knee avascular necrosis and lesion for osteochondrosis: can hyperbaric oxygen therapy help?



Good morning,

Thank you in advance for your attention. I'd like to know if hyperbaric oxygen therapy can be helpful

in my case. Here it follows the report of the MRI scan for the part that I think may concern you:

“presence of lesion due to osteonecrosis among the tubercular inter-condyle of the tibia plateau with maximum width of 7.1mm; presence of lesions due to osteochondrosis on the lower articular edge of the femoral mid-condyle, with maximum width of 7.8 mm and 8.00mm.”

The orthopaedist recommended doing inoculations of hyaluronic acid and Platelet-Rich Plasma (PRP).

What would you advise?

Teresa

Dr. Claudia Rastelli responds



Dear Mrs. Teresa, I'm really sorry for your problem. The hyaluronic acid and the platelet-rich plasma are great solutions to improve the conditions of the osteonecrosis wounds.

I would associate these treatments with a specific session of hyperbaric oxygen therapy in order to reduce the bone oedema typical of the osteonecrosis outbreak.

It is very important in this period to avoid to over loading your limb. I recommend you to use crutches to avoid a worsening of your articular conditions.

At the hyperbaric centre in cases like yours we recommend to associate your therapy with magneto therapy, which would strengthen the bone. Also, it's advisable to follow a pharmacological therapy with bisphosphonates (as long as you don't have personal contraindications).

Kind regards,

Dr. Claudia Rastelli

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