

CARBON DIOXIDE SNOW AND TUB TO PREVENT LIMB AMPUTATION

With an investment of HUF 900 million, the centre for the unique, carbonic dioxide treatment for vascular diseases have been completed. The treatment has a success rate of 87 percent and may even save limbs. This project is the culmination point of the treatment procedure developed in the late 1940s in this little town in the Rábaköz region. Kapuvár uses this treatment as a basis for a number of medical tourism projects.

HEALTH

ATTILA TURBÓK

A small town in the Rábaköz region, Kapuvár has been called the Mecca of vascular patients for a few years. The black Kaaba stone of Mecca, however, here is replaced with a white material called carbon dioxide snow. This substance is a "by-product" of the oil drills completed some time ago around Mihályi. Instead of oil, carbon dioxide was found there, which forms a snow-like substance on the surface after released from the great undersurface pressure and coming into contact with air. A general practitioner in Mihályi discovered the health impacts of the carbon dioxide snow.

ITS BENEFICIAL EFFECTS HAVE BEEN KNOWN FOR 60 YEARS •

An expert on the issue and former director of the hospital of Kapuvár, *Dr. Farkas Ballagi* told us that it was back in the 1940s when Dr. Pál Schwartz discovered that the gas-like substance made from carbon dioxide snow has a beneficial effect on locomotor and vascular diseases. He experimented in the bathtub of his

home and finally published his findings in 1948. Back then the head physician of the Division of Internal Medicine was Dr. János Veres. He worked at the hospital between 1932 and 1955 as an internal specialist and pulmonologist and used his own invention, the so-called "Veres syringe" to cure patients diagnosed with pulmonary diseases. This special syringe is still being used in the field laparoscopy in a number of countries. The statue of the head physician stands in the beautiful park of the hospital. Dr. Veres picked up the initiative by Pál Schwartz and completed a number of experiments at Lumniczer Hospital. In 1967 Dr. Schwartz was appointed as the head physician for the rheumatology ward that replaced the pulmonology department. As head physician Ballagi tells us, it was then that Dr. Schwartz began to use the carbon dioxide treatment on an increasing number of patients. The medical profession at first doubted the new carbon dioxide gas treatment. "I was appointed head physician of the ward after the retirement of Dr. Schwartz in 1974. We then began modernising the carbon dioxide

gas tubs and launched our rehabilitation programme," Dr. Farkas Ballagi explains. The now independent vascular ward was then taking a new direction towards angiology rehabilitation with 3-week rehabilitation periods introduced and the medical and measurement background of the treatment developed.

- In the meantime, Dr. Ballagi tells us, the health ministry ordered a study of the effects of the carbon dioxide bath and a professional review of the procedures used, headed by Professor László Urai between 1981-1984. During the study period, over 50 vascular patients visited Kapuvár from all over the country to participate in the impact study. After the successful completion of the test, in 1985 it was officially announced at the county capital that the carbon dioxide gas treatment used in Kapuvár can effectively cure patients suffering from vascular diseases.



DR. FARKAS BALLAGI
Developed a new tub for this famous treatment.

THIS TREATMENT IS UNIQUE IN HUNGARY

- Having helped over 27,000 vascular patients, Dr. Farkas Ballagi told us that this procedure is unique in Hungary and that the official recognition opened up the way for efficient vascular rehabilitation treatment. Dr. Ballagi emphasizes that the rehabilitation programme has a 37% success ratio. "Back in the 1970s

we had a patient whose legs we were able to save with help from our fellow surgeons," Mr. Ballagi quotes this miraculous event. Mrs. Antal R. of Székesfehérvár even had her surgery appointment for the amputation of her leg when she was taken to Kapuvár. In cooperation with surgeons and using this famous treatment, they were able to save her leg from amputation.

Even though such miraculous events do not happen every day at the angiology ward of the Kapuvár hospital, the success of the treatment is clearly indicated by the waiting list of over 1000 patients even today. The new angiology ward uses the Ballagi type tubs to cure patients. The tub developed based on the research of the former head physician has been patented and he transferred all patent rights to the town free of charge. Dr. Farkas Ballagi retired in April 2007 but he has been around to oversee the development projects of Kapuvár as a special



angiology consultant.

It is his successor, Dr. István Horváth, who can move the angiology ward now renowned in Europe to the new building.

DR. ZOLTÁN BENEDEK, DIRECTOR GENERAL:
„This major investment project has a positive influence on all hospital wards.”

The head physician told us that the currently 115-bed angiology ward will have an increased capacity for 134 patients. Even though the ward is expanding, there are over a thousand patients on the waiting list to receive treatment. Head physician Horváth explains that the waiting period for them is close to one year. "We offer three-week turns to our patients in Kapuvár. In addition to the carbon dioxide gas treatment, physical therapists, masseurs and other professionals help our work," Dr. István Horváth explained the details.

AWARDED AS THE HOSPITAL OF THE YEAR AFTER A TRAUMA

- "Recognition by our patients is what makes our work worthwhile and for years we have not had any real complaint about the institution or the staff," *Dr. Zoltán Benedek*, Director General of the Lumniczer Hospital explains. He emphasized that since the Kapuvár hospital lost its active

provider role in April 2007, this ward is the most significant of the entire hospital and serves as a foundation for the entire institute. As a result of the angiology project completed this year, close to 40 new qualified staff members were hired including physical therapists and masseurs. In addition, the hospital also relies on the opportunities presented by tenders to provide regular advance training for its employees. "The impacts of the investment projects can be felt virtually everywhere in the institution from various new equipment to advanced training for staff, same-day outpatient surgery and technical improvements," the Director General noted.

According to Dr. Zoltán Benedek, the major hospital project, in addition to revenues and reputation, also forged hospital staff together. "Even though we have not forgotten the trauma of April 2007 resulting from the loss of our active service provider status, we had this large project before us to lay the foundations of the town's medical reputation," he added. He also noted that the angiology project, with effective help from the municipality and the institution itself, increased public interest for the hospital of Kapuvár. The "Hospital of the Year" award in 2007 was only part of that success story. "Vascular rehabilitation is the future of Lumniczer Sándor Hospital on which we can build services to ensure our long-term, uninterrupted and quality operation," said Dr. Zoltán Benedek.

MEDICAL TOURISM WILL BE THE TAKE-OFF POINT FOR THE TOWN

Vascular rehabilitation provides the basis not only for the hospital in Kapuvár. Mayor *György Hámori* pointed out that the angiology investment project is the basis for the concept announced in 2006 according to which medical tourism will be the take-off point for the whole town.



The **NEW REHABILITATION BUILDING** is an investment worth close to HUF 900 million.

- "We cannot count on major industrial investments and we cannot compete with well-established wellness centres. We, however, do have a unique treatment procedure we can expect paying foreign patients," said *György Hámori*. The three-week stay of patients in Kapuvár opens up great opportunities in terms of accommodation and consumption in the town. "In cooperation with the civil sector, we have established a complete programme package over the years to provide

civilized, varying pastime opportunities not only for patients but also their visiting relatives. Yet, we still have a long way to go in terms of increasing our accommodation capacities," the mayor noted. He also added that investors appear to take up an interest in the town and, among others, he expects that the area behind the gymnasium is going to be utilised for tourism purposes.

THE TREATMENT IS ALMOST LIKE A MIRACLE



- "I have come to Kapuvár every year since 1996 and I can honestly say the treatment is almost like a miracle," said *Zoltán Mátyás* from Sorkifalud, Vas County. The 62-year-old man has been having his treatment at the vascular rehabilitation board since early February with daily carbon dioxide tub treatment. "Currently I can barely walk 200 metres but by the end of the treatment I can feel immediate improvement," he explained the benefits of the cure. He first heard about the treatment at Kapuvár from a vascular surgeon in Szombathely and has recommended it to a number of his acquaintances ever since.