



First use of gating techniques with active scanning proton therapy in Trento

A big step towards successful treatment of moving targets at the Proton Therapy Center in Trento

Trento, Italy, September 26 2017 - The Trento Azienda Provinciale per i Servizi Sanitari (APSS) and IBA, the world's leading provider of proton therapy solutions for the treatment of cancer, announce the successful completion of the first gated treatment at the Proton Therapy Center in Trento.

For the first time, the clinical team in Trento completed a gated treatment for a patient affected by unresectable thymoma. They delivered active scanning proton therapy by synchronizing the proton beams with the patient respiratory cycle. This technique was performed through real time tracking of the patient's respiratory motion, without any use of physical marker (Vision RT®). The technology of Vision RT® tracks the patient's 3D surface in real time, which enhances patient comfort and safety, and improves the efficiency of the treatment by the clinical team.

GateCT® was used to track the patient's breathing during the CT scanning and thereby enabling 4DCT acquisition and reconstruction. The evaluation of the interplay effect for a free-breathing treatment is performed using the different phases of the 4DCT.

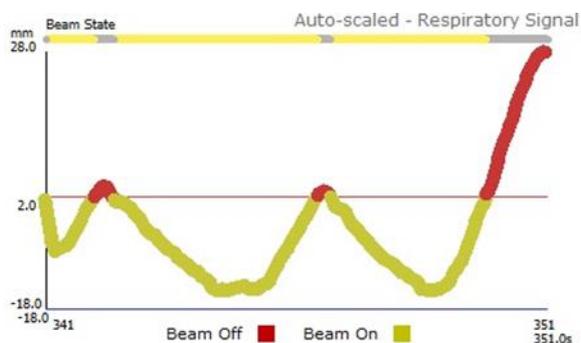
During treatment delivery, accurate gating was ensured, allowing automatic beam hold when the breathing amplitude was higher than the one measured during the 4DCT scan. (*fig.1 and fig.2*)

Dr. Maurizio Amichetti, MD, Clinical Director of the Proton Therapy Center, commented: "This is a big step towards the full implementation of moving-target treatments with pencil beam scanning in our center. The moving-target project team leaders, Dr Francesco Dionisi, MD and Dr Francesco Fracchiolla, M.Sc., reported impressive results in terms of treatment feasibility and efficacy. We are really proud to improve every day with the goal of translating research projects in a clinical benefit for our patients".

Anne Peters, Executive Vice President at IBA added: "At IBA, developing solutions that are clinically significant for the patients and that ease the work of our customers in their clinical practice is our priority. Many patients benefit from the complete solution that we offer for effective treatment of the moving-targets."

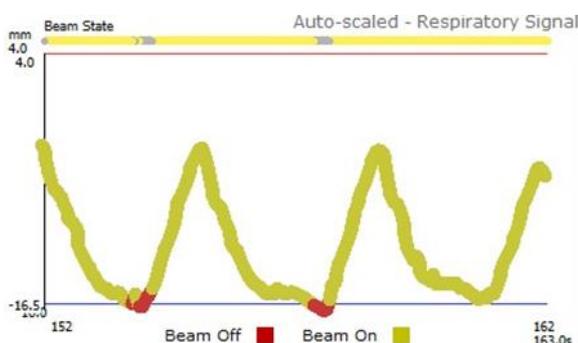


Figure 1



The red waves represent patient's breathing outside the gated window, the beam being off during this period.

Figure 2



The green waves represent patient's breathing inside the gating window, allowing for irradiation.

About the Azienda Provinciale per I Servizi Sanitari (APSS)

The Trento Health Authority (APSS) was set up in 1995 through the union of 11 local health units. The Trust ensures the delivery of all 'essential levels of care' set out by the Italian government plus additional services established by the Provincial government. It is one of the largest health authorities in Italy with over 7.900 employees, 830 general practitioners, pediatricians and other specialists operating within its organization and 523.000 people registered. It handles direct management of 7 hospitals and 4 health districts with 31 outpatient treatment units, 3 structural departments (laboratory, radiodiagnosticians, anesthesia and intensive care) and has agreements with 7 hospitals, 17 outpatient treatment units and 55 nursing homes to provide health services.

About IBA

IBA (Ion Beam Applications S.A.) is a global medical technology company focused on bringing integrated and innovative solutions for the diagnosis and treatment of cancer. The company is the worldwide technology leader in the field of proton therapy, considered to be the most advanced form of radiation therapy available today. IBA's proton therapy solutions are flexible and adaptable, allowing customers to choose from universal full-scale proton therapy centers as well as compact, single room solutions. In addition, IBA also has a radiation dosimetry business and develops particle accelerators for the medical world and industry. Headquartered in Belgium and employing about 1,500 people worldwide, IBA has installed systems across the world.

IBA is listed on the pan-European stock exchange NYSE EURONEXT (IBA: Reuters IBAB.BR and Bloomberg IBAB.BB).

More information can be found at: www.iba-worldwide.com



Press Release

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