



AZIENDA OSPEDALIERA UNIVERSITARIA INTEGRATA
VERONA



A 30-YEAR HISTORY
OF EXCELLENCE

Verona Gamma Knife



PRECISION TECHNOLOGY
SERVING HEALTH

30th ANNIVERSARY

4-5 OCTOBER 2024

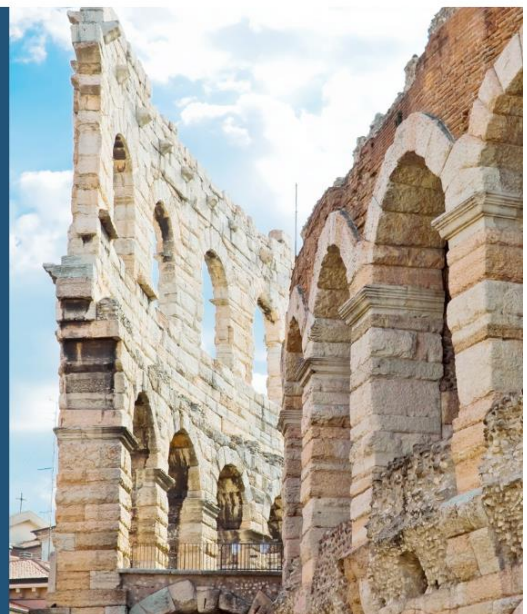
Gran Guardia, Verona

President of the Congress:

Antonio Nicolato

Scientific Secretariat:

Giorgia Bulgarelli, Anna D'Amico,
Antonella Lombardo, Michele Longhi,
Paolo Maria Polloniato, Emanuele Zivelonghi



CONGRESS PRESENTATION

Friday 4 and Saturday 5 October 2024 at the prestigious and iconic Gran Guardia Congress Center, in the heart of the city of Verona, will be held the conference celebrating over 30 years of the institution of stereotactic and neuroradiosurgery with Gamma Knife in Verona, cutting-edge technology in non-invasive treatment of brain tumors and other brain lesions. In April 1990, thanks to the tenacity and shared aspirations between Prof. Gerosa Massimo and last president of the Banca Popolare di Verona, Giorgio Zanotto, financing was obtained for the purchase of the first stereotactic helmet costing 120 million lire, starting the neurosurgery operations Stereotaxics at the 'Hospital Institutes of Verona', where the first Department of Italian neurosurgery was founded at the end of the '50s by Professors Giuseppe Dalle Ore, Renato Da Pian, Albino Bricolo and Aldo Benati. The Department of Neurosurgery soon rose to national health prominence both for the number of patients treated and coming from all over our country, and also from abroad, both for the quality of healthcare services provided, contributing together with other hospital and university medical disciplines and figures of our hospital, to give an image of national and international importance in the healthcare sector public to the city of Verona and to our Regional Public Health System. Since February 1993, the Gamma Knife was installed, among the first in Italy and Europe. The first Neuroradiosurgery procedures with Gamma Knife therefore began thanks to the multidisciplinary collaboration between Prof. Massimo Gerosa, Dr. Armando Pasoli, Dr. Roberto Feroni, Dr. Alberto Beltramello, Dr. Enrico Piovan, Dr. Alberto Pasqualin and Dr. Antonio Nicolato. The development, updating and evolution in the following years were significant: the updated version arrived in 2008 of the Gamma Knife, known as "*Perflexion*"; in 2012, the "*Extend System*"; in 2021, the "*Icon*", the latest model of the "*Leksell Gamma Knife*", which led the Verona Hospital to become Italian excellence in the field of patient care brain tumors and not only from a research perspective based on the BTA 'Best technology Available'. In particular, the innovation of the Leksell Gamma Knife Icon, further expanding the spectrum of brain treatable pathologies; it has reduced both the economic and social costs associated with hospital stay, allowing treatments to be carried out in day surgery, even hypofractionated, improving therapeutic efficacy and safety and significantly reducing the risk of side effects. Stereotactic neurosurgery and neuroradiosurgery activities are still in full and regular progress, attracting patients from every Italian region. In fact, at the AOUI of Verona, DAI of Neurosciences, USD Stereotaxis, today Dr. Antonio Nicolato directs the multidisciplinary 'team' composed by: Dr. Michele Longhi, Dr. Anna D'Amico; Dr. Giorgia Bulgarelli, Dr. Antonella Lombardo, the TSRM Simone Sgalambro, the 4 nurses Tatiana Leardini, Tiziana Pighi, Paolo Cantù, Alberto Fiorini, with Laura Pigliacelli as nursing coordinator, and the secretary Marisa Avesani. Stereotaxis also makes use of the fundamental support and daily collaboration of the Medical Physicists, Dr. Paolo Maria Polloniato and Emanuele Zivelonghi, part of the Health Physics Unit directed by Dr. Carlo Cavedon, and of Neuroradiologist Colleagues of the Neuroradiology Unit, directed by Dr. Benedetto Petralia. Collaborate on activities of the USD Stereotaxis the Anesthesiologist Colleagues of the Anesthesia and Post-Multispecialist Intensive Care Unit Surgery, directed by Prof. Leonardo Gottin, and the Ophthalmologist colleagues of the Ophthalmology Clinic, directed by Prof. Giorgio Marchini, as well. Obviously, there is a strong collaboration with the Department of Neurosciences, directed by Dr. Giampietro Pinna, and with University Neurosurgery Clinic, directed by Prof. Francesco Sala.

The peculiar and innovative aspect in the field of 'health' and patient care is represented by the fact that the procedures stereotactic techniques of neurosurgery and neuroradiosurgery allow the treatment of brain pathologies therefore for highly critical and delicate on-site definition minimally invasive or non-invasive. In summary, the enormous advantage offered to the health of citizens by these procedures results from the combination of the following factors:

- treatment of complex diseases/pathologies in delicate areas with daily hospitalization in the majority part of the patients;
- excellent tolerability by patients

- very high percentages of therapeutic success;
- very low risks of permanent side effects;
- therefore, very favorable social impact:
 - o very short period of hospitalization, with reduction of costs for the SSR and minimization of inconvenience for the patient;
 - o very short convalescence period;
 - o very rare need for a period of neurological rehabilitation;
 - o return to common daily activities family, work, etc. within 2-3 days.

Since this year marks the anniversary of over 30 years of activity, our 'team' thought it appropriate celebrate this particular anniversary by organizing an event entirely focused on our experience, represented by over 16000 patients treated with Gamma Knife neuroradiosurgery and by over 1300 Stereotactic Neurosurgery procedures, 70% of which come from offices outside the Veneto Region and abroad. Finally, the enormous amount of healthcare also corresponds to a high level of training and research activity, with numerous scientific works published in international journals and books and organized events. The Conference aims to compare and disseminate the therapeutic results achieved at a national and international level neuroradiosurgical and stereotactic neurosurgery fields and will bring several leading professional figures into the our city, known throughout the world for its culture, art, architectural style, monuments and also for its delicacies of food.

Preliminary program

Friday 4th october:

8:30-9:00 **Registration**

9:00-9:30 **Opening session:** A. Nicolato (ELGKS), G. Pinna (DAI Neuroscienze AOUI VR);
F. Sala (EANS, NCH B)

Greetings from the authorities: P. Nocini (Univ. VR); C. Bravi (AOUI VR); E. La
Paglia (Health Alder, Verona); L. Zaia / M. Lanzarin (Reg. Veneto);

9:30-10:30 **“Testimonials” and Patient’s association**

Introduction: Èquipe USD Stereotassi, AOUI Verona

ACC, Parkinson Disease, Forum Vest Schwannomas., Cerebral Tumors, and so

10:30-11:30 **Neuroradiosurgery: technique comparison**

Moderators: C. Cavedon (VR), G. Ghigi (RA), (TBD)

- New technologies achievement in Verona City Hospital. C. Cavedon (VR)
- Gamma Knife. Zivelonghi-Polloniato (VR)
- Cyberknife. E. De Martin (MI)
- MR-Linac-RM. A. De Simone (VR)
- ZAP-X. A. Santacroce (Munich, D)

11:30-12:30 **Primary Brain’s malignancies**

Moderators: A. Olivi (RM), S. Maluta (VE), A. Colamaria (FG)

- Surgery of High Grades gliomas in adults G. Pinna (VR)
- Surgery of Low grade gliomas in adults : G. Cecchini (PZ)
- New protocolsi. A. D’Amico (VR)
- Surgery of pediatric tumors : F. Sala (VR)

12:30-13:30 **Cerebral metastasis**

Moderators: R. Rudà (TO), B. Zanotti (MN), (TBD)

- STAT3/Silibiline. Rooda (VR)
- Neuro-radiosurgery, single fraction. F. Inserra (CT)
- Adaptive SRS vs. Fractionation. A. Franzin (BS)
- Combining surgery and post-operative neuroradiosurgery. A. Lombardo (VR)

13:30-14:30 **Lunch**

14:30-15:00 **Lectio magistralis:** 30 yrs of Verona GK. Remembering Prof. Massimo Gerosa
and Doctor. Roberto Foroni. A. Nicolato (VR)

15:00-16:00 30 yrs of Verona's stereotaxis: past, present and future

Moderators: A. Beltramello (VR), A. Pasqualin (VR), S. Turazzi (VR)

- Stereotactic neuroradiology: root and development . E. Piovan (VR)
- Advanced imaging and its stereotaxis' applications. GK Ricciardi (VR), M. Longhi (VR)
- From “Kula” to “Lightening”. A Pasoli, P. Polloniato (VR)
- “Adaptive” then and now; Staged treatments; Multisession/Extend/ICON); Meningiomas, MAV, imaging and so. E. Zivelonghi (VR)

13:30-14:30 Coffee break

16:30-17:30 Meningiomas

Moderators: G. Liberti (PI), L. Fariselli (MI), A. Conti (BO)

- Surgical treatment. F. Chioffi (PD)
- Neuroradiosurgery: single session. E. Motti (Lugo, RA)
- Neuroradiosurgery: multi-session. M. Marchetti (MI)
- Pharmacological treatments in GII/III MNs. G. Lombardi (PD)

17:30-19:00 Functional neurosurgery

Moderatoris M. Tinazzi (VR), B. Bonetti (VR), S. Montemezzi (VR)

- Tremor: pharmacological treatment. C. Maremmanni (MS)
- Discussant: T. Bovi (VR)
- DBS for tremor and PD. A. Landi (PD)
- Discussant: G. Tommasi (VR)
- Lesional treatments in tremor: Gamma Knife RS and Focused Ultrasound: G. Bulgarelli (VR); G.K. Ricciardi (VR)
- Discussant: F. Paio (VR)
- Focused ultrasound in neuropathic chronic pain.
- Discussant: S. Tamburin (VR)
- Neuroradiosurgery in trigeminal neuralgia P. Picozzi (MI)
- Trigeminal neuralgia, surgical approach and percutaneous treatments R. Ricciuti (RM)

20:00 Gala dinner

Saturday 5th october:

9:00-10:00 Vestibular schwannoma

Moderators: D. Marchioni (BO), G. Danesi (BG), C. D'Arrigo (BS)

- Hearing preservation and small IAC tumors : P. Picozzi (MI)
- Surgery B. Masotto (VR)
- Neuro Radiosurgery: single session. G. Pecchioli (FI)
- Neuro Radiosurgery: multi-session. Z. Perini (VI)

10:00-11:00: Pituitary Adenomas

Moderators A. Musumeci (BS), G. Barone (VR), F. Guaraldi (BO)

- Endocrinological framework M.R. Ambrosio (FE)
- Surgery of non-functioning pituitary adenoma. L.M. Cavallo (NA)
- Surgery of functioning pituitary adenoma D. Mazzatenta (BO)
- Neuro-radiosurgery: personal experience and Guidelines. R. Barzaghi

(MI) 11:00-11:15 **Coffee break**

11:15-13:00 Cerebral Artero-venous malformations (AVMs)

Moderators: B. Petralia (VR), D. Romano (SA), M. Resta (TA/BA)

- Supratentorial AVMs: endovascular treatment S. Bracco (SI)
 - Infra-tentorial AVMs: endovascular treatment. M. Hammam (PG)
- Surgery of AVMs: adult age G. Pavesi (MO)
- Surgery of AVMs: pediatric age -Turin's experience Peretta (TO)
 - Surgery of AVMs: pediatric age -Genova's experience Piattelli (GE)
 - Radiosurgery of AVMs: adult age. Personal experience and guideline. A. La Camera (MI)
 - Radiosurgery of AVMs: pediatric age. Personal experience and guideline. M. Longhi (VR)

13:00-13:15 Closing remarks and farewell messages. USD Stereotaxis Verona team

Organizing secretariat

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Patronages requested / obtained

- Veneto District
- Municipality of Verona;
- Ordine Dei Medici Chirurghi e Odontoiatri (OMCEO) della Provincia di Verona;
- Università di Verona;
- Azienda Ospedaliera Universitaria Integrata (AOUI) Verona;
- Associazione Italiana di Fisica Medica e Sanitaria (AIFM)
- Associazione Italiana di Neuro-Oncologia (AINO);
- European Association of Neurosurgical Societies (EANS);
- European Leksell Gamma Nife Society (ELGKS);
- International Stereotactic Radiosurgery Society (ISRS);
- Società Italiana di Neurochirurgia (SINch);
- Scienze Neurologiche Ospedaliere (SNO Italia)