Turin was the venue for the ESTRO School’s second teaching course on the “Management of brain tumours”. Turin is a beautiful city on the verge of the Italian Alps and lies on the bank of the Po River. There is a wonderfully preserved 1st century BC Roman Gateway in the north of the city, the Palatine Gate.

This course brought together participants from Europe, South Africa, Lebanon, South Korea and Australia.

Our coursework prior to the start of the teaching course was to delineate target volumes in two clinical scenarios of a high grade glioma and low grade glioma respectively, using multiple co-registered imaging data sets. This was performed via the web-based platform FALCON. The aggregate of the individual contouring data sets was then presented at the meeting where the teachers and participants were able to discuss the particular nuances of each case.

Dr Michael Brada, the course director and his experience in neuro-oncology spans decades. Dr Brada knows the literature very well and was able to distil for the course participants real advances from marketing “hype”, particularly with regard to newer radiation technologies and techniques.

One example in this regard was the mystique associated with the term “stereotactic”. My impression was that delivery of this type of radiation necessitated very expensive new hardware and software equipment as well as “punchy” dose/fractionation schedules. Dr Brada explained that hardly anyone these days uses 3D co-ordinate geometric “stereotaxy” to deliver precision treatments. Most modern radiotherapy departments, on a day-to-day basis, use accurate treatment planning systems, excellent immobilisation equipment and on-treatment image guidance to allow for high precision radiation techniques to be delivered to most anatomical sites including the central nervous system (CNS).

Dr Ranj Bhangoo, consultant neurosurgeon, Kings College Hospital, London, UK, gave a very practical lecture on the relevant imaging techniques pertaining to CNS tumours. New for me was the value attached to diffusion weighted images (DWI) as well as the increased use of [11C] Methionone & [18F]-FLT-PET. Dr Bhangoo then delivered a very informative lecture on neuro-surgical techniques, including fluorescence guided (5-ALA) surgery and introduced the concept of operating to “functional” margins by using intra-operative mapping of speech and motor function.

I felt the most important lecture of the three-day course was delivered by Dr Paola Cassoni, neuropathologist at the University of Turin. Dr Cassoni outlined the well-known problems associated with the WHO 2007 CNS tumour classification. Inter-observer concordance of morphological diagnosis of brain tumours is not particularly high. There now appears to be a consensus that morphology coupled with pivotal molecular signatures (IDH mutations, 1p19q loss of heterozygosity and possibly MGMT promoter methylation) will be the basis for an integrated neuropathological classification system.

The management of low grade gliomas remains a difficult area but it appears that maturing clinical trials are providing some guidance in terms of how best to treat our patients. Dr Patrick Roth from University Hospital Zurich, Switzerland, gave a series of excellent lectures on systemic therapy for CNS tumours. Dr Anthony Chalmers, Chair of Clinical Oncology, University of Glasgow, UK, also gave several very helpful lectures on both systemic and radiation therapy issues.

Dr Darren Hargrave, paediatric oncologist from Great Ormond Street Hospital, London, UK, gave us a perspective from his extensive experience in treating paediatric brain tumours and Dr Damien Weber from Centre for Proton Therapy, University of Zurich, gave a very erudite lecture on CNS radiation tolerance, treatment of skull based tumours and proton therapy. This led to interesting and, at times, humorous sparring session between Professors Brada and Weber on the relative merits of proton therapy for skull based tumours.
Dr Umberto Ricardi and Dr Cristina Mantovani from Turin were gracious hosts and both gave wonderful lectures on germ cell tumours and radiation therapy techniques respectively.

Lastly, I speak for all the course participants in their gratitude to Gabriella Axelsson for her kindness, efficiency and hard work.

Having now attended five ESTRO School teaching courses, I continue to be impressed and reassured that this important programme exists for the betterment of the radiation oncology community worldwide. I am profoundly grateful that ESTRO places such a high priority on its teaching course programme.

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