ESMO 2014 Congress Scientific Meeting Report – CNS Malignancies Extract
26-30 September 2014
Madrid, Spain

Summary
The European Society for Medical Oncology (ESMO) Congress, held September 26 to 30 in Madrid, Spain, was a record-breaker on nearly all levels. It was resounding success and in a dedicated infographic you can find the congress statistics. A primary emphasis in the scientific programme was placed on precision medicine and how it will change the future treatment landscape in oncology. In addition, a number of scientific presentations were dedicated to cancer immunology and immunotherapy across multiple tumour types. This report is an overview of key scientific presentations made during the congress by leading international investigators. It attempts to represent the diversity and depth of the ESMO 2014 scientific programme, as well as advances in oncology.

Infographic (right): ESMO 2014 record breaking Congress
CNS Malignancies

Randomised phase II trial AVAREG (ML25739) with bevacizumab or fotemustine in recurrent glioblastoma

Dr Alba Brandes of the Bellaria Hospital, Bologna, Italy presented final results from the randomised phase II AVAREG (ML25739) trial in which bevacizumab showed no better outcome in patients with recurrent glioblastoma when compared with fotemustin.

In glioblastoma, global functioning worsens every time the disease relapses. Recurrent glioblastoma is determined by change in personality, neurocognitive decline, PS decline, and needs for corticosteroids associated with side effects.

The role of bevacizumab in glioblastoma treatment has been largely debated since only a few data compared this agent with standard therapy. Fotemustine is a third generation chloroethylnitrosourea with limited lung toxicity. It is the most used nitrosourea in Italy.

A multicenter, open label, randomised (2:1), non-comparative phase II study with bevacizumab every 2 weeks or fotemustin on days 1, 8, 15 followed, after a 35 days interval, by fotemustin every 3 weeks had as a primary endpoint OS at 6 months (OS6). Secondary endpoints were OS-9 and OS-12, median OS, PFS6, response rate, toxicity profile, and QoL.

Stratification factors were age (<55 years or >55 years) and resection for recurrent disease (yes vs. no).

Central imaging review was pre-planned using RANO criteria and Macdonald’s criteria. Central pathology review was also pre-planned.

The initially planned sample size of 75 patients was increased according to the expected dropout rate of about 17%. In total 91 ITT patients with recurrent glioblastoma were enrolled among 10 Italian centers between November 2011 and September 2012. Median age was 57 years (range: 28-78), ECOG PS was 0/1/2 in 42/35/14 patients. All patients received radiotherapy/temozolomide according to the EORTC 26981-22981/NCIC CE3 protocol.

Time from diagnosis to first recurrence was 331 days in the bevacizumab arm and 460 days in the fotemustin arm. At the time of recurrence, 21 patients (23.1%) underwent re-resection before the inclusion into the study (13 patients in the bevacizumab arm and 8 patients in the fotemustin arm, respectively). Fifty-nine patients were enrolled in the bevacizumab arm and 32 patients in the fotemustin arm.

OS6 was 62.1% and 73.3%, OS9 was 37.9% and 46.7% in the bevacizumab and fotemustin arms, respectively. Median OS was 7.3 months in the bevacizumab arm and 8.7 months in the fotemustin arm. Median PFS in the bevacizumab arm was 3.38 months and 3.45 months in the fotemustin arm.

In the bevacizumab arm, OS6 and OS9 were 77.8% and 59.3% in patients ≤55 years, and 48.4% and 19.3% in patients >55 years. The HR for OS in the bevacizumab group for patients >55 years compared with patients ≤55 years was 2.0 (p = 0.05).

Concordance between local and central assessments was 72.5% using RANO criteria and 71.1% with Macdonald’s criteria.
Grade 3-4 toxicities in the bevacizumab and fotemustin arms were neutropaenia (1.7% vs. 12.5%), thrombocytopaenia (0 vs. 21.9%), intestinal perforation (3.4% vs. 0), cerebral ischaemia/haemorrhage (3.4% vs. 0), pulmonary embolism (1.7% vs. 0), and acute myocardial infarction (1.7% vs. 0).

Dr Brandes concluded that bevacizumab and fotemustine had differing toxicity profiles in this trial. Both bevacizumab and fotemustine are highly active in the treatment of recurrent glioblastoma. Bevacizumab activity seen is in line with all reported series.

Limitations of phase II studies are that they are non-comparative, underpowered for face-to-face comparison, limited sample size may not protect from biases, and ambitious endpoints (such as mOS and OS rates) may be hampered by known and unknown factors.

Prof. Evanthia Galanis of the Mayo Clinic, Rochester, USA, who discussed the study results, said that AVAREG was well conducted, randomised, non-comparative trial in recurrent glioblastoma. Bevacizumab and nitrosourea arms performed similarly but final information on crossover is pending. There is a different, but acceptable side effects profile. The data support the use of bevacizumab in recurrent glioblastoma if take into consideration clinical characteristics, symptom status, and comorbidities.

The study was sponsored by F. Hoffmann-La Roche.

Reference

414O: Randomized phase II trial AVAREG (ML25739) with bevacizumab (BEV) or fotemustine (FTM) in recurrent GBM: Final results from the randomized phase II trial
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Disclosure
No conflicts of interest to disclose.

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