# Conference Digest

## Reports from the American Society of Clinical Oncology (ASCO) 2012 Annual Meeting (1-5 June 2012; Chicago, USA) – *Susan Mayor PhD, Medical Journalist.*

### Intermittent hormonal therapy is less effective in advanced prostate cancer

Intermittent hormonal therapy is less effective than continuous hormonal therapy in men with hormone-sensitive metastatic prostate cancer and minimal disease spread, showed results from a major study that resolved a long-standing debate.

Intermittent hormonal therapy has appeared to be effective in previous studies, but these included men whose prostate cancer progression was based only on an increase in PSA level and not on X-ray evidence, or included men with wide-ranging stages of disease rather than just metastatic cancer.

Maha Hussain, MD, FACP,
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The US study, sponsored by the National Cancer Institute, was designed to test whether intermittent hormonal therapy achieved comparable survival to continuous therapy in men with metastatic prostate cancer. It included more than 1500 men (median age 70 years) with hormone-sensitive metastatic prostate cancer whose PSA level fell to 4ng/ml or less after seven months of continuous hormonal therapy. They were then randomised to intermittent hormonal therapy or continuous hormonal therapy. Giving treatment periodically based on strict stopping and starting criteria meant that patients in the intermittent therapy received only about half as much hormonal therapy, on average, as those in the continuous therapy group.

Results after a median follow-up of 9.2 years showed that median overall survival in men with minimal disease spread (no spread beyond the spine, pelvis and lymph nodes) was 7.1 years in men treated with continuous hormonal therapy compared to 5.2 years in those given intermittent therapy. Men with more extensive disease spread showed similar overall survival (4.4 years with continuous hormonal therapy vs 5 years with intermittent treatment).

"Some doctors recommend intermittent hormonal therapy to men with metastatic prostate cancer, believing it will reduce their risk of side-effects without compromising their outcome, but these findings demonstrate a clear downside to this approach for certain men," said lead author Maha Hussain, professor of medicine and urology at the University of Michigan Comprehensive Cancer Center, Ann Arbor, USA. "The rather striking and surprising results clearly demonstrate that intermittent hormonal therapy is not safe for all patients with metastatic prostate cancer." He suggested that the study findings will be practice changing for many doctors who routinely use intermittent therapy, and recommended that continuous hormonal therapy should be the preferred treatment for men with metastatic prostate cancer and minimal disease spread. ■

### Adding bevacizumab to chemotherapy improves progression free survival in ovarian cancer

Adding the VEGF inhibitor bevacizumab (Avastin) to standard chemotherapy doubled progression-free survival in an international phase III trial of women with platinum-resistant ovarian cancer reported during a late-breaker session.

The AURELIA study included 361 women with epithelial ovarian, fallopian tube or primary peritoneal cancer that had progressed within six months of their last dose of platinum therapy. They were randomised to chemotherapy (either pegylated liposomal doxorubicin, topotecan or weekly paclitaxel, selected by the investigator) given either alone or with bevacizumab (10mg/kg every two weeks or 15mg/kg every three weeks, depending on chemotherapy).

Eric Pujade-Lauraine, MD, PhD,
Photo by ©ASCO/Scott Morgan 2012

After a median follow-up of 13.5 months the recurrence rate was lower in patients treated with bevacizumab plus chemotherapy (75%) compared to those treated with chemotherapy alone (91%). Median progression-free survival was 6.7 months in the combination group, compared to 3.4 months in the chemotherapy alone group. Overall survival data are not yet complete.

Reporting the findings, Eric Pujade-Lauraine, professor at the Université de Paris Descartes, France, said the addition of bevacizumab offers a new treatment option for the 20% of women who have primary platinum-resistant disease, as well as those whose disease later becomes platinum-resistant. "For the first time in platinum-resistant ovarian cancer, we have been able to significantly improve progression-free survival with a combination therapy." He added that strict exclusion criteria, including a history of bowel obstruction, minimised the risk of adverse events with bevacizumab. ■

### Combined chemo-radiation improves survival in brain tumours

Giving combination chemotherapy after standard radiation therapy delays tumour growth and extends survival in patients with anaplastic oligodendroglial tumours, according to results from a phase III study from the European Organisation for Research and Treatment of Cancer (EORTC).

The study included 368 patients newly diagnosed with anaplastic oligodendroglial tumours. They were randomised to treatment either with radiation therapy alone (33 x 1.8Gy) or to radiation followed by six cycles of chemotherapy with procarbazine, CCNU and vincristine (a regimen known as PCV). Most patients with this type of tumour have previously been treated with either chemotherapy or radiation, but not both.

Results reported at the meeting showed that progression-free survival was significantly longer in patients treated with the combination or radiation plus PCV (24.3 months) compared to those given radiation along (13.2 months). Overall survival was 42.3 months in the radia-

tion/PCV combination group and 30.6 months in the radiation-only treatment group.

A subanalysis of the study showed the survival benefit of combination chemotherapy-radiation treatment may be limited to patients whose tumours have specific deletions in chromosomes 1 and 19 (1p/19q co-deletions). In this subset of 80 patients, treatment with radiation/PCV reduced their risk of death by 44% compared to patients who received radiation alone. Median overall survival was 9 years in patients with such deletions who received radiation alone, but this endpoint had not yet been reached in the radiation/PCV group after follow-up of almost 12 years. In the 236 patients without these co-deletions, overall survival showed no statistical difference between the treatment groups (25 months for the radiation/PCV group versus 22 months for radiation alone).

Martin Van Den Bent, MD,
Photo by ©ASCO/Scott Morgan 2012

"From this trial, it's clear that combining chemotherapy and radiation can significantly improve survival for certain patients," explained lead author Martin van den Bent, professor of neuro-oncology at Erasmus MC – Daniel den Hoed Cancer Center in Rotterdam, the Netherlands. "Not only do we now have a better treatment – we also have a genetic marker that can help us determine which patients will benefit, allowing us to personalise treatment for this challenging disease." ■

## Leukaemia study warns that adolescents and young adults have poorer survival

Adolescents and young adults (aged 16 to 30) with high-risk acute lymphoblastic leukemia (ALL) have poorer event-free survival and overall survival than younger patients (aged 1 to 15) on the same treatment regimens, warned a major phase III study of ALL treatment.

The trial tested four treatment regimens for high-risk B-precursor ALL and results were reported at ASCO last year. The new analysis looked at survival based on patients' ages. Previous research has suggested poorer outcomes in patients over 16 but this is the first study with sufficient numbers on the same treatment regimens to compare directly.

The study included 501 adult and young adolescent patients making it the largest cohort of this age group to date in a single cancer clinical trial; 20% of the overall trial enrollment. Results confirmed high cure rates with ALL treatment regimens but revealed poorer outcomes in older patients. Five-year event-free survival (defined as no evidence of disease) was 68% and overall survival was 79.8% in patients aged 16-30, compared to 80.9% and 88.4%, respectively, in younger patients. These differences were highly statistically significant ($p<0.0001$).

Adolescent and young adult patients had a higher relapse rate (21.3%) than younger patients (13.4%). Relapses were mainly due to a higher rate of bone marrow relapse rather than central nervous system (CNS) relapse. The treatment strategy of the trial aimed to improve disease control in the CNS, but there was no statistically significant difference in CNS relapse between the older and young age groups.

Toxic deaths that occurred after induction therapy and remission were significantly higher in adolescent and young adult patients (5.5% vs 2.1%).

"This study tells us that the inferior outcome for adolescent and young adult patients is the result of more resistant disease, resulting in higher rates of relapse and higher toxicity from treatment," said Eric Larsen, medical director of the Maine Children's Cancer Program, USA. "We have to find novel agents to better eradicate the leukaemia, but while we want to intensify therapy, we also have to reduce toxicity." He said the Children's Oncology Group, which carried out the study, is now looking at new options to improve treatment efficacy and minimise toxicity. ■

# Awards & Appointments

## Bath Professor recognised by European Life Sciences Award

Professor Barry Potter at the University of Bath has been named "Investigator of the Year 2012" at the European Life Sciences Award ceremony held in Hamburg, Germany. This prestigious award recognises outstanding accomplishments in the global life sciences arena, specifically at the interface of chemistry with biology and medicine.

Professor Barry Potter, from the University's Department of Pharmacy & Pharmacology, researches the chemistry of signalling within cells and drug discovery. Many cancers are caused by errors in cell signalling, for example when a cancerous cell produces signals to divide uncontrollably it can lead to tumour growth. Professor Potter's work has included the discovery of a new family of anti-cancer drugs called steroid sulfatase inhibitors, which targets a cell signalling pathway. His work has been underpinned by national and international collaborations between

academic biologists, physicians, oncologists, endocrinologists, pharmaceutical scientists and the pharmaceutical industry. His research covers the whole spectrum of basic curiosity-driven laboratory science through to the treatment of patients through clinical trials with drugs designed at Bath.

Professor Potter's award was presented by Professor Abraham Lee of the University of California USA at the end of May, in conjunction with a keynote lecture by biologist science writer and broadcaster Dr Adam Rutherford, an editor at the science journal *Nature* and writer for *the Guardian*.

Professor Potter said: "It's always a great honour to receive recognition such as this and I want to pay special tribute to close colleagues especially at Bath, past and present, who have worked with me in this area and our other collaborators over the years, all of whom are also recognised through this award." ■