Advances in cervical cancer screening and treatment

he ASCO annual meeting plenary session featured two presentations that addressed different aspects of cervical cancer. They were both phase III randomized trials, but one assessed the use of vinegar in enabling screening for cervical cancer to be conducted in India, and the other studied the use of the antibody bevacizumab in the treatment of late-stage disease. The similarity between the two trials lies in the positive nature of the reported results.

The first of these abstracts to be presented at ASCO was the muchanticipated large-scale cervical cancer screening trial that was conducted in women in Mumbai over 15 years. India was selected for this trial because cervical cancer is the leading cause of cancer death in women in that country. Furthermore,



despite the success of cytology-based screening in reducing mortality in many other countries, implementing these screening modalities in India has been difficult because of a lack of funding and facilities. As the discussant Electra Paskett pointed out: "the goal of a cervical cancer prevention programme in ... developing countries really is to maximize participation and use tests that have maximum sensitivity, affordability and feasibility."

The investigators randomly assigned 75,360 women to screening conducted by trained public health workers every 2 years using visual inspection with acetic acid (VIA) and 76,178 women to a single educational session regarding signs and symptoms of concern. Any woman partaking in the trial was entitled to free follow up if cervical cancer was indicated.

The study achieved high participation rates, with 89% taking part in VIA screening, and 79% following up screening with a diagnostic confirmation if needed. Importantly, the diagnosis by the public health workers was comparable to that conducted by an expert gynaecologist.

In terms of cancer incidence, the screening and the education groups were similar (26.74% and 27.49%, respectively). However, in the screening group there was a significant 31% reduction in cervical cancer mortality compared with the control group. The 7% reduction in allcause mortality in the screening group did not reach significance.

Crucially, the intervention can be readily implemented and Surendra Shastri pointed out in his presentation that this screening technique could save 22,000 lives each year in India. Furthermore, if the screening programme is extended to other resource-poor countries it could save 78,000 lives each year. Paskett further commented that if this screening programme were rolled out to all patients not covered by current programmes, it could save a whopping 250,000 lives annually. The promising data on screening were followed by a presentation of the phase III study in which 452 patients with advanced-stage cervical cancer were randomly assigned to receive chemotherapy alone or chemotherapy in combination with the anti-VEGF antibody bevacizumab. The median overall survival was improved in the cohort who received bevacizumab—17 months compared with 13.3 months.

"Unfortunately, women with metastatic and recurrent cervical cancer have very few therapeutic options. The standard regimen of cisplatin plus paclitaxel is associated with a median overall survival of under 12 months," pointed out Krishnansu Tewari in his plenary address. He went on to say that "the 3.7-month improvement is felt to be clinically meaningful."

The discussant Gottfried Konecny supported the clinical importance of these data, and said that "this is a clinically meaningful and important improvement." Indeed, the improved survival reported in this presentation is the first example of a targeted agent improving overall survival in a gynaecological cancer—a statement that indicates much work remains to be done, but is a step in the right direction for these patients.

Taken together, these results provide hope at both ends of the treatment trajectory for cervical cancer. These advances in public health and targeted therapies will likely have an impact on patients and their families in the near future.

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Original abstracts Shastri, S. S. *et al.* Effect of visual inspection with acetic acid (VIA) screening by primary health workers on cervical cancer mortality: a cluster randomized controlled trial in Mumbai, India [abstract]. *J. Clin. Oncol.* **31** (Suppl.), a2 (2013) | Tewari, K. S. *et al.* Incorporation of bevacizumab in the treatment of recurrent and metastatic cervical cancer: a phase III randomized trial of the Gynecologic Oncology Group [abstract]. *J. Clin. Oncol.* **31** (Suppl.), a3 (2013)