

### P34 YOUTH INVOLVEMENT – AN OPTIMAL TECHNIQUE TO ERADICATE CANCER

M.F. Mkhize. *Umvithi Youth Development Consultants, KwaZulu Natal, South Africa*

**Background:** Evidence that any delay in providing information results in lack of treatment or admission, which might result in death or irreversible harm to an individual, constitutes an emergency. Involving youth in the process could help avoid an unnecessary lack of information, and might contribute to the sustainable legacy of fighting cancer. Youth-development programmes and initiatives associated with awareness, education, and eradication of cancer could decrease unnecessary deaths caused by cancer. Ongoing youth-development projects and partnership campaigns could improve health awareness.

**Methods:** Analysis of 500 young people involved in a Rural Youth Health-Development programme (RYHD) conducted by Umvithi Youth Development and Department of Health in KwaZulu, Natal, showed an improved ability to care, teach, and prevent cancer. Through the RYHD, 2500 community members underwent training and tests to recognise symptoms, and others were diagnosed with cancer and related diseases that they were not aware of.

**Findings:** As a result of the RYHD, many individuals took positive action and full responsibility to decrease cancer risk, such as quitting smoking, eating healthy food, and exercising regularly.

**Interpretation:** Utilising youth for information distribution and involvement in the fight against cancer could propel communities towards sustainable improvement in health, and enhances the ability of individuals to take responsibility for their own health. Young people are founders and initiators of projects, groups, and organisations; they are lobbyists, decision-makers, and are a key element for building a successful and growing community.

**Funding:** UMGungundlovu District Municipality.

The author declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.035

### P35 PRELIMINARY STUDY OF EGFR MUTATION PROFILE IN CYTOLOGICAL SPECIMENS OF INDONESIAN LUNG-CANCER PATIENTS

A. Hudoyo <sup>a,\*</sup>, S. Andarini <sup>a</sup>, A. Utomo <sup>d</sup>, H. Heriawaty <sup>c</sup>, I. Nasar <sup>b</sup>. <sup>a</sup> Department of Pulmonology and Respiratory Medicine, Faculty of Medicine, University of Indonesia, Persahabatan Hospital, Jakarta, Indonesia. <sup>b</sup> Department of Pathology, Faculty of Medicine, University of Indonesia, Jakarta, Indonesia. <sup>c</sup> Department of Pathology, Persahabatan Hospital, Jakarta, Indonesia. <sup>d</sup> KalGen Laboratory, Jakarta, Indonesia

**Background:** Many lung-cancer studies have shown that female patients without a history of smoking and of Asian origin have a good response to tyrosine-kinase inhibitors (TKIs). Epidermal growth-factor receptor (EGFR) mutations are prevalent in these patients, which explains the promising response to TKIs. How-

ever, prevalence of mutations in the EGFR gene and response to TKIs in Indonesian patients with lung cancer has not been studied. We have begun preliminary work to collect cytological samples from 14 patients, to assess the prevalence of EGFR mutations and related clinicopathological parameters such as sex, age, stage, and response to TKIs.

**Methods:** Cytological slides were examined by pathologists and tumour cells were microdissected, to isolate total DNA, and sent to a certified reference laboratory in Jakarta. Direct DNA sequencing was done against exon 19 and 21 of the EGFR gene, which are the most frequent sites of mutation according to literature.

**Findings:** EGFR mutations were found in 50% of patients ( $n=14$ ); female patients had a higher frequency than male patients (71% [5 of 7] vs. 29% [2 of 7]). Deletion of exon 19 was more common than substitution mutations in exon 21, which contributed up to 71% and 29% to the overall mutation rate, respectively. EGFR mutation was not associated with age or other clinicopathological parameters. Response to TKIs in patients with and without EGFR mutations is currently being investigated.

**Interpretation:** EGFR mutations are more prevalent in Indonesian women than in men, and deletion of exon 19 being the most common mutation type. The preliminary response of patients to TKIs is being evaluated. Large prospective studies are needed to evaluate the response to TKIs among Indonesians with EGFR mutations.

**Funding:** Internal funding was provided by the University of Indonesia, Minister of Research and Technology, Republic of Indonesia

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.036

### P36 DIAGNOSTIC AND PROGNOSTIC POTENTIAL OF CK20 GENE EXPRESSION IN PATIENTS WITH TRANSITIONAL-CELL CARCINOMA OF THE URINARY BLADDER

P.K. Singh <sup>a,\*</sup>, A. Srivastava <sup>a</sup>, P. Singh <sup>e</sup>, D. Singh <sup>b</sup>, D. Dalela <sup>b</sup>, M. Goel <sup>c</sup>, S. Gupta <sup>a</sup>, M.P.S. Negi <sup>d</sup>, M. Bhatt <sup>a</sup>, S. Rath <sup>a,b,c,d,e</sup>.

<sup>a</sup> Department of Radiotherapy, C.S.M. Medical University, Lucknow, India. <sup>b</sup> Department of Urology, C.S.M. Medical University, Lucknow, India. <sup>c</sup> Department of Pathology, C.S.M. Medical University, Lucknow, India. <sup>d</sup> Biometry and Statistics Division, Central Drug Research Institute, Lucknow, India. <sup>e</sup> Division of Toxicology, Central Drug Research Institute, Lucknow, India

**Background:** Bladder cancer is among the five most common malignancies worldwide, and recurrence of non-invasive tumours makes it one of the most prevalent cancers. Cystoscopy in conjunction with urine cytology is the gold standard for detection of bladder cancer; however, cystoscopy is invasive and expensive, with low accuracy for high-grade disease. Urine cytology has low sensitivity for detection of low-grade bladder cancer. The aim of study was to quantitate cytokeratin 20 (CK20) mRNA expression in exfoliated cells of urine in patients with transitional-cell carcinoma (TCC), by use of SYBR Green real-time PCR, which may be used as a non-invasive tool for follow-up of patients with bladder cancer.