

organised cancer screening programme, specialists are trying to reach the masses through different approaches.

Methods. This pilot study was done in Mumbai in coordination with different non-governmental organisations (NGOs). After women had participated in a health education programme (HEP), they were screened for breast cancer (clinical examination), cervical cancer (visual tests namely visual inspection with acetic acid and visual inspection with Lugol's Iodine), and oral cancers (visual examination). Women screened positive were referred to Tata Memorial Hospital (TMH) for further diagnosis and management.

Findings. Three hundred and seventy-two women participated in HEP. Twenty-three (12.43%) of 185, 32 (17.88%) of 179, and 18 (35.29%) of 51 women screened positive for breast, cervical, and oral cancers, respectively. The compliance among these women to undergo further diagnostic investigations at TMH was poor. One case of cervical pre-cancer and one of cervical cancer were diagnosed.

Interpretation. Affordable, effective, and acceptable outreach cancer screening services as part of an awareness programme are needed in India. The NGOs should take responsibility for motivating women who screen positive for cancer to comply with further confirmatory diagnostic investigations at the referral hospital.

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AOS2 PREVALENCE OF SYMPTOMATIC DEEP VEIN THROMBOSIS IN PATIENTS WITH CANCER ADMITTED TO THE NATIONAL KIDNEY AND TRANSPLANT INSTITUTE IN THE PHILIPPINES

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Background. Prevention of cancer-associated thrombosis is important for reducing the burden of disease, yet it has received little attention from clinicians. In this study we aimed to assess the prevalence of deep venous thrombosis (DVT) in patients with solid and haematological malignancies who were admitted to the National Kidney and Transplant Institute (NKTi) and to define the profile of patients with cancer who developed DVT.

Methods. In this retrospective study, charts of inpatients with cancer who developed DVT from January 2005 to December 2010, were reviewed. ICD-10 codes for DVT and pulmonary embolism were used to search for patients. The total number of patients with cancer was obtained from the medical records section of the electronic database.

Findings. Ten thousand two hundred and ninety-nine patients with cancer were admitted to NKTi from 2005 to 2010. Forty-six developed DVT (prevalence 0.45%). Prevalence in solid and haematological malignancies was 0.44% and 0.43%, respectively. DVT commonly occurred within 6 months of cancer diagnosis, and in patients with stage IV malignancies and those who were obese. Lung cancer was the most common malignancy that presented with DVT. Leg oedema was the most common initial manifestation. Doppler venous ultrasonography frequently showed proximal DVT with or without distal involvement. Twenty-one deaths were known to have occurred after diagnosis of DVT. Most patients died within 1–3 months of the onset of DVT. Septic shock was the most common cause of death.

Interpretation. The results suggest that DVT in patients admitted to NKTi occur in those with late-stage cancer and that the thrombosis is usually extensive, symptomatic, and arises early after the initial diagnosis of cancer. Also, after the onset of DVT, most patients died within

1–3 months, which is lower than the median survival cited in previous studies.

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AOS3 CONTROL OF URINARY, RECTAL, AND SEXUAL SYMPTOMS AFTER 3-D CONFORMAL RADIOTHERAPY FOR BLADDER CANCER

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Background. Radical cystectomy remains the standard of care for muscle-invasive transitional cell carcinoma of the bladder. A combination of maximum transurethral resection of the bladder tumour, radiation, and concurrent chemotherapy is the hallmark of modern bladder function preserving strategies. Our aim is to describe bladder, rectal, and sexual dysfunctions in survivors after radical radiotherapy for urinary bladder cancer.

Methods. Twenty patients were treated with 3-D conformal radiotherapy (60–66 Gy in 2 Gy fractions, five fractions per week) on a linear accelerator machine. Median follow-up time was 30 months. For comparison, 20 controls were selected from our annual cancer register. Information was collected anonymously to avoid investigator-related bias using a questionnaire about changes in daily life after radiotherapy.

Findings. Of the irradiated patients, 80% reported little or no distress from urinary symptoms. Twenty per cent of patients reported that radiotherapy had a moderate to severe impact on their present bladder function, causing dysuria, incontinence, or stenosis that required the use of a bladder catheter. Thirty per cent of irradiated patients reported moderate to severe impact on their present sexual function. Impotence and lack of sexual desire were significantly higher among the male patients who received radiotherapy. Forty per cent of the male patients had regular sexual intercourse (half of whom used aids like sildenafil to sustain erection) and 70% of the male patients reported they had ejaculation. Moderate distress from symptoms of the gastrointestinal tract was reported by 30% of irradiated patients. Diarrhoea was most common, followed by faecal urgency and faecal incontinence.

Interpretation. After radical radiotherapy, most patients had a well functioning bladder. Radiotherapy is associated with considerable long-term intestinal side-effects because the treatment field includes the bowel. Moreover, radiotherapy can result in sexual dysfunction. Although we do not suggest that selective bladder-sparing treatment should replace radical cystectomy, sufficient data now exists to indicate that it is a valid alternative.

The authors declared no conflicts of interest.

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AOS4 DETECTION OF HUMAN PAPILLOMAVIRUS DNA IN PATIENTS WITH DIFFERENT CERVICAL LESIONS IN KURDISTAN REGION, IRAQ

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Background. Human papillomavirus (HPV) is documented to be a causative agent of cervical cancer and detection rates of more than 90% were registered in some parts of the world. This study was undertaken to introduce polymerase chain reaction (PCR) for diagnosing HPV infection in women with different cervical lesions for the first time in Kurdistan region and to define the most prevalent high-risk (HR) genotypes (HR HPV).

Methods. Eighty women (aged 25–70 years) with different cervical lesions, cytologically classified as ASC-US ($n = 20$), CIN I ($n = 30$), CIN II–III ($n = 16$), and cervical carcinoma ($n = 14$) and 20 healthy individuals (control group) were enrolled in this study. PCR screening kits were used to extract the entire genomic DNA from cervical cells scraped from cases and then PCR HR HPV genotyping kits were used to test the positive samples.

Findings. HPV DNA was detected at an estimated rate of 17.5% in the cases but was absent in the control group. In the cases, the detection rate of HPV DNA was 1.25% (1 of 20), 3.75% (3 of 30), 5.0% (4 of 16), and 7.5% (6 of 14) in the cytological categories ASC-US, LSIL (CIN-I), HSIL (CIN-II–III), and cervical cancer, respectively. Moreover, the results of this study showed the detection of seven HR HPV types 16, 52, 56, 35, 45, 39, and 33 at frequency rates of 28.4%, 21.4%, 14.3%, 14.3%, 7.1%, 7.1%, and 7.1%, respectively. Therefore, HPV 16 was the most commonly detected HR HPV genotype among the positive cases (28.4%).

Interpretation. This is the first PCR study done in the Kurdistan region. The detected rate of HPV DNA (17.5%) in this region verifies the use of PCR. Moreover, the detected rate of HPV infection correlated with the severity of the cytological findings and HPV 16 was the most commonly detected HR genotype among positive cases (28.4%). Knowing the rate of HPV infections and the HR genotypes are of utmost importance for HPV vaccine introduction, which is not yet scheduled in this region and other parts of Iraq.

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AOS5 CLINICAL AND BACTERIOLOGICAL SPECTRA OF NEUTROPENIC SEPSIS IN PATIENTS WITH CANCER TREATED AT A TERTIARY CARE CENTRE IN KASHMIR VALLEY

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Background. This prospective study was done to define the clinical and bacterial profiles in patients with cancer who had febrile neutropenia with changing bacteriological and sensitivity (and resistance) patterns.

Methods. All the patients with cancer and febrile neutropenia who were hospitalised from August 2007 till September 2009 were studied. They were assessed to identify the cause and outcome of sepsis and production of extended-spectrum beta-lactamase (ESBL).

Findings. A total of 170 febrile episodes in 138 neutropenic inpatients were investigated. Number of episodes of febrile neutropenia were 1 in 111 (80%), 2 in 22 (16%), and 3 in 5 (4%) patients. Leukaemia (in 124 episodes of febrile neutropenia) was the major diagnosis. Lymphomas and other solid malignancies were seen in 18 and 28 episodes respectively. Fifty-two (31%) cultures were positive for Gram-positive organisms in 30 febrile episodes and Gram-negative organisms in febrile episodes (ratio: 1.3/1). The organisms grown were *Staphylococcus aureus* in 14 episodes (26.92%), coagulase-negative staphylococci in 11 episodes (21.15%), *Enterococcus* in three episodes (5.7%), *Pneumococci* in two episodes (3.8%), *Escherichia coli* in eight episodes (15.38%), *Klebsiella* in eight episodes (15.38%), *Pseudomonas* in three episodes

(5.7%), *Acinetobacter* in two episodes (3.8%), and *Citrobacter* in one episode (1.9%). 20/22 Gram-negative isolates showed ESBL production. Culture positivity was 41.02% in moderate, 24.32% in severe, and 12.72% in profound neutropenia cases; the difference was significant between moderate and profound groups (p value < 0.001). Mean neutrophil count at defervescence was $642/\text{mm}^3$. Early (< 7 days) neutrophil recovery occurred in 21.16% of patients with moderate neutropenia, in 6.1% with severe neutropenia, and 5.9% with profound neutropenia. The differences were significant (p value < 0.001).

Interpretation. Most of the bacteria grown in this study were Gram positive. Predominance of ESBL-producing organisms was particularly notable. Neutrophil counts can be used to predict the rate of recovery and response to treatment in neutropenic patients.

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AOS6 ASSOCIATION OF ALPHA B-CRYSTALLIN GENOTYPES WITH ORAL CANCER SUSCEPTIBILITY, SURVIVAL, AND RECURRENCE IN TAIWAN

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Background. Alpha B-crystallin (CRYAB) is a protein that functions as a molecular chaperone in preserving the intracellular architecture and cell membrane, and is highly antiapoptotic. Abnormal CRYAB expression is prognostic for oral cancer, but its genomic variations and the association with carcinogenesis have never been studied. Therefore, we hypothesised that CRYAB single nucleotide polymorphisms might be associated with risk of oral cancer and investigated the association of CRYAB A-1215G (rs2228387), C-802G (rs14133), and intron2 (rs2070894) polymorphisms with oral cancer in a Taiwanese population.

Methods. In this hospital-based study, 496 patients with oral cancer and 992 age-matched and sex-matched healthy controls were genotyped and analysed.

Findings. A significantly different frequency distribution of CRYAB C-802G genotypes, but not A-1215G and intron2 genotypes, was noted between the oral cancer and control groups. The CRYAB C-802G G allele conferred an increased risk of oral cancer ($p = 1.4961025$). Patients with CG/GG at CRYAB C-802G had lower 5-year survival and higher recurrence rates than did those with CC ($p < 0.05$).

Interpretation. Our results provide the first evidence that the G allele of CRYAB C-802G is associated with risk of oral cancer and this polymorphism might be a useful marker for oral cancer recurrence and survival prediction.

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AOS7 ROLE OF CRYOTHERAPY IN MULTIDISCIPLINARY MANAGEMENT OF ENDOBRONCHIAL METASTASES

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Background. Metastases to the bronchial tree from extrapulmonary malignancies can cause significant symptoms that preclude systemic