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 ($n = 20$), CINI ($n = 30$), CINII-III ($n = 16$), and cervical carcinoma ($n = 14$) and 20 healthy individuals (control group) were enroled 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 HPVs 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.

The authors declared no conflicts of interest.

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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/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.

The authors declared no conflicts of interest.

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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.

The authors declared no conflicts of interest.

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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