Interpretation. The prevalence of *KRAS* mutation in Thai patients with colorectal cancer was similar to that in other reports. Patients with mutant *KRAS* had more non-hepatic metastases than did those with WT-*KRAS*. Overall survival in patients with wild-type *KRAS* was not different from those with mutant *KRAS*. The mosaic pattern of tumour cells might account for the discordance in the *KRAS* status.

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AOS18 CALRETICULIN EXPRESSION IS REQUIRED FOR ORAL CANCER-CELL PROLIFERATION AND MIGRATION, AND IS CORRELATED WITH CLINICOPATHOLOGIC FEATURES IN ORAL SQUAMOUS-CELL CARCINOMA PATIENTS

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Withdrawn.

AOS19 OESTROGEN RECEPTOR-α GENE POLYMORPHISM (T392C) IN IRANIAN WOMEN WITH BREAST CANCER

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Background. Receptor-mediated oestrogen activation plays a part in the development and progression of breast cancer. Evidence suggests that alterations in oestrogen signalling pathways, including oestrogen receptor-α (ESR1-α) occur during breast cancer development. ESR1-α gene polymorphism is known to be associated with breast cancer and clinical features of the disease in Caucasians. Results of epidemiological studies have shown that age-incidence patterns of breast cancer in women from the Middle East differ from those in Caucasians. Genomic data for *ESR1-α* in either population are therefore important in the clinical setting for each ethnic group and we have investigated whether polymorphisms in the *ESR1-α* are associated with risk of breast cancer.

Methods. A case–control study was done to establish a database of *ESR1* polymorphisms in the Iranian population for comparison of western and Iranian (Middle East) distributions and to assess *ESR1* polymorphism as an indicator of clinical outcome. The *ESR1* gene was scanned in 150 Iranian patients who were newly diagnosed with invasive breast tumours and in 147 healthy individuals. Single-strand conformation polymorphism polymerase chain reaction (PCR) and direct sequencing were done.

Findings. Silent single nucleotide polymorphisms (SNPs), as reported in previous studies, were found but at significantly different frequencies. The frequency of allele 1 in codon 10 (TCT → TCC) (T/C, S392S) of exon 1 was significantly higher in patients with breast cancer (45.7%) than in the controls (39.8%; $p = 0.148$). We found that allele 1 (TCT → TCC) in codon 10 was significantly more common in patients with breast cancer who had a family history of breast cancer (78.9%) than in those without such a history (40.8%; $p = 0.001$). The allele 1 in codon 10 showed an association with the occurrence of lymph node metastasis (58.7% and 43.3% with and without lymph node metastases, respectively). Therefore, this SNP marker further increased predictive accuracy in the Iranian population.

Interpretation. Our data suggest that *ESR1* polymorphisms correlated with various aspects of breast cancer in Iranian women, as determined during pre-surgical assessment, might represent a surrogate marker for predicting breast cancer.

The authors declared no conflicts of interest.

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AOS20 EFFECTIVENESS OF A SELF-REPORTING PAIN ASSESSMENT TOOL AT THE BEDSIDE OF INPATIENTS WITH CANCER

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Background. Pain is common in cancer and a patient's self-report of pain is an essential first step in the management of such pain. However, according to reports of many studies, cancer pain is often managed inadequately because we do not listen to patients' complaints of pain and tend to underestimate their cancer pain. The aim in this study was to assess the effectiveness of self-assessments of pain intensity at the bedside of inpatients, using a self-reporting pain board.

Methods. Pain assessments were done with patients' answers to questions asked by the medical staff that were recorded with a numerical rating scale (NRS) for 3 days and then for the next 3 days patients reported pain using a self-reporting pain board with moving indicators, representing 0–10 on the NRS, and they reported the frequency of their breakthrough pain.

Findings. Fifty consecutive inpatients admitted to the Oncology Department of Chungbuk National University Hospital were included in this observational prospective study from February 2011 to December 2011. Reliability in the patients' self-reported pain versus that recorded by the medical staff increased from 74% to 96% with use of the self-reporting pain board ($p = 0.004$). The difference (mean ± standard deviation [SD]) between the NRS reported by patients and that reported in medical records decreased from 3.16 ± 2.08 to 1.00 ± 1.02 ($p < 0.001$). Patients' satisfaction with pain management increased from 54% to 82% ($p = 0.002$). Moreover, the difference in the workload of medical staff in assessing patients' pain (mean ± SD) decreased from 46.9 ± 15.5 to 24.3 ± 11.2 ($p < 0.001$).

Interpretation. We suggest that this self-reporting bedside pain assessment tool provides a reliable and effective means for the assessment of cancer pain in inpatients.

The authors declared no conflicts of interest.

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AOS21 ROLE OF PET/CT IN PATIENTS WITH OCCULT PRIMARY CANCER WITH NECK METASTASIS

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Background. The aim in this study was to assess whether positron emission tomography/computed tomography (PET/CT) could be useful for detection of the occult primary tumour site in patients with neck metastasis.

Methods. PET/CT was compared with detailed examination, imaging, and panendoscopy in a prospective study of 79 consecutive patients with occult primary tumours plus neck metastases in a tertiary care centre.

Findings. The sensitivity of PET/CT in the identification of the site of the primary tumour was 92.85% and the specificity was 41.17%. Sensitivity was 0% and specificity was 68.62% for imaging, and 100% and 78.43%, respectively, for panendoscopy.

Interpretation. PET/CT is more sensitive for detection of the occult primary tumour. It has a low specificity rate and a high false-positivity rate. For this reason, several biopsies from suspected primary tumour sites should be taken rather than solely relying on PET/CT. The amount of uptake of contrast on PET/CT (intensely positive areas) correlates better with the positive results of panendoscopy and biopsy. PET/CT-guided fine needle aspiration cytology should be used more frequently.

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AOS22 EXPRESSION OF EXCISION REPAIR CROSS COMPLEMENTATION GROUP 1 (ERCC1) PROTEIN IN INDONESIAN PATIENTS WITH NASOPHARYNGEAL CARCINOMA RECEIVING CISPLATIN-BASED ADJUVANT CHEMOTHERAPY

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Background. Overexpression of excision repair cross complementation group 1 (ERCC1) has been reported to be associated with resistance to platinum-based chemotherapy in head and neck cancer. Since cisplatin-based adjuvant chemoradiotherapy is the standard treatment for nasopharyngeal cancer (NPC) in Indonesia, it is important to investigate the role of ERCC1 as a possible predictive marker of disease progression in our patients.

Methods. Consecutive samples obtained from our pathology archives of NPC from 31 patients who were receiving standard treatment with cisplatin-based chemoradiotherapy were examined for ERCC1 expression by use of immunohistochemistry. A retrospective cohort study was done and overall survival curves (OS) were plotted versus expression of ERCC1.

Findings. ERCC1 expression was high in 16 (51.6%) patients and low in 15 (48.4%). There were no differences in the baseline characteristics between the two groups (age, sex, and stage of the disease; $p > 0.05$). Median survival was 15.5 months. Analysis of OS showed a significant difference between the two groups ($p = 0.02$). A univariate analysis of the baseline characteristics and ERCC1 in relation to the 1 year OS showed that only ERCC1 was significant. 53.3% (95% confidence interval (CI) 40.4–66.2) of patients in the group with high ERCC1 expression had an OS of 1 year or more, whereas 80% (95% CI 69.7–90.3; $p = 0.02$) of the group with low ERCC1 expression had an OS of 1 year or more. The median 1 year OS in the high ERCC-1 group was 13.2 months (95% CI 0.0–27.2), whereas it was not achievable in the low ERCC-1 group. Hazard ratio for the group with high expression of ERCC1 was 3.304 (95% CI 1.12–9.71).

Interpretation. The low expression of ERCC1 might prolong the overall survival in Indonesian patients with NPC who are receiving standard cisplatin-based chemoradiotherapy.

The authors declared no conflicts of interest.

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AOS23 O6-METHYLGUANINE-DNA-METHYLTRANSFERASE EXPRESSION IN THAI PATIENTS WITH MALIGNANT GLIOMAS: OUTCOME AND RESPONSE TO TREATMENT IN RAMATHIBODI HOSPITAL

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Background. Malignant glioma is a rare but fatal tumour. High expression of O6-methylguanine-DNA-methyltransferase (MGMT) has been linked to poor outcome. We investigated the frequency of MGMT expression and its correlation with outcome and response to treatment in Thai patients.

Methods. In a retrospective cohort study of adult patients with histologically confirmed WHO grade III and IV malignant glioma diagnosed at Ramathibodi Hospital between January 1997 and December 2009, tumour tissue was assayed for MGMT immunohistochemistry status using MT 3.1 antibody with normal brain as the internal control. Data for clinical characteristics, treatment details, and outcome were collected. The main objective was the frequency of MGMT overexpression. Secondary outcomes were the correlation of MGMT expression with survival and treatment response.

Findings. One hundred thirty-five patients were eligible for analysis. The median age was 47 years. The most common histology was glioblastoma multiforme (WHO grade IV, 54.8%). Only 97 specimens were available for MGMT analysis and overexpression was detected in 31%. Median overall survival (OS) was 11.9 months and 1-year, 2-year, and 5-year OS was 50% (95% confidence interval (CI), 0.41–0.58), 34% (95% CI, 0.26–0.42), and 21% (95% CI, 0.14–0.29), respectively. Four significant adverse prognostic factors for survival that were identified in a multivariate analysis were diabetes mellitus, neurological deficit at diagnosis, histology of glioblastoma multiforme, and receipt of only single treatment modality. MGMT expression did not have prognostic value in the univariate and multivariate analyses. There was no difference in overall survival or response to treatment with temozolamide/BCNU in the subgroup with low MGMT compared with high MGMT.

Interpretation. The prevalence of MGMT expression in Thai patients with malignant glioma was not different from that reported elsewhere. MGMT expression did not affect outcome in this study cohort. Therefore, considering MGMT as a relevant factor in selection for treatment with temozolamide might be premature.

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AOS24 CANCER PHYSICIANS' ATTITUDES TOWARDS CANCER TREATMENT IN GERIATRIC PATIENTS IN SINGAPORE

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