Coexistence of MALT lymphoma with carcinomas was seen primarily in gastric lesions associated with H. Pylori infections. To our knowledge, only one case was reported with synchronous pulmonary adenocarcinoma and MALT type extranodal marginal zone lymphoma.

**Case Report:** A 49 years old male presented with back pain, weight loss and fatigue. Chest x-ray revealed an increased density suggesting a mass localized to superior zone of left lung. Systemic radiologic examination of the patient did not reveal any other mass lesion. Endoscopic examination of upper gastrointestinal system revealed gastric ulcer. The biopsy taken from the stomach and duodenum showed MALT lymphoma in both locations. He underwent an exploratory chest operation, during which a mass lesion completely invading thoracic outlet and a second mass lesion located in apical segment of left upper lobe, separated from the first mass by a thickened pleura were noted. A frozen section diagnoses of malignant neoplasm was given for the mass lesion invading thoracic outlet. Therefore, this mass was excised along with wedge resection of the second apical lung lesion. The excised first mass measured 5x4x0.7 cm, it was hard and gray to brown colored. The wedge resection covered with visceral pleura measured 8x5.5x2cm and contained an infiltrative grayish, whitish mass of 2 cm diameter without pleural involvement. These two tumors, one of which was primarily localized in pleura with limited extension into the lung parenchyma and the other mainly localized in the lung parenchyma had different morphologic and immune phenotypic features. Light microscopy of the tumor involving mainly pleura showed a malignant epithelial tumor with mainly diffuse patern with focal papillary areas. The differential diagnoses of this tumor included primary or metastatic adenocarcinoma and epithelial mesothelioma. Mucicarmine stain was negative while PAS and D-PAS stains were positive in some tumor cells. Tumor cells were pankeratin and vimentin positive, TTF-1, CK7, CK 5/6, CK20, CEA, calretinin, NSE, synaptophysin and chromogranin negative. There was focal CD15 positivity. Although CK7 and TTF-1 were negative, these morphologic, histochemical and immunohistoch- eological features suggested that this tumor might represent an undifferen- tiated large cell or poorly differentiated pulmonary adenocarcinoma. The second tumor localized in lung parenchyma was well differentiated adenocarcinoma with mucicarmine positive intracytoplasmic mucine secretion. It had CK7, TTF-1 positive and vimentin, CK 5/6 and CK20 negative immunophenotype. This tumor was intimately associated with diffuse neoplastic lymphocytic infiltration. Neoplastic lymphocytic cells had a monocytoid appearance with formation of occasional lymphoepithelial lesions. Lymphocytic tumor cells CD20 positive, CD5, CD10, CD23, CD3 and cyclinD1 negative immunophenotype. Because of these features, a diagnoses of MALT lymphoma was given.

To the best of our knowledge our case is the first one that presented with two different lung carcinomas which had different morphologic and immunophenotypic features, one of which was associated with multisystemic (lung, stomach, duodenum) extranodal marginal zone lymphoma of MALT type.

**P1-179**  
**Clinicopathological study of bronchogenic carcinoma - a study of 303 cases**  
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**Subjects:** 303 patients of bronchogenic carcinoma in the Department of Radiotherapy, Dhaka Medical College Hospital. Dhaka from 1st January 2000 to 31st December 2005.  
**Settings:** Department of Radiotherapy, Dhaka Medical College Hospital  
**Main Outcome Measures:** This study reveals a general idea of certain clinicopathological aspects of bronchogenic carcinoma prevailing amongst the population of Bangladesh.  
**Results:** Males (87.79%) suffered more than females (12.2%) their ratio was 7.19:1. Majority of the patients were of elderly age group with peak occurrence between 50 and 59 years. More than 90% of the patients were smoker. 86.47% chewed betel leaf 68.65% used tea and only 19 (6.27%) were alcoholic. More than 60% of the patients were lower socioeconomic class and others from middle class family. Approximately 40% of the patients were illiterate. 37.29% had primary education. 12.54% secondary school education. 5.96% higher secondary and only 4.62% graduate and above.

Cough (77.89%) was the commonest presenting symptom followed by chest pain (66%), Dyspnoea (44.55%), haemoptysis (40.59%). Squamous cell carcinoma (51.82%) was the most common histology followed by small cell carcinoma (19.14%), adenocarcinoma (13.86%), large cell carcinoma (7.28%). Right lung was effective more and the upper lobes were the common sites of involvement.

**Conclusion:** This study correlates and sometimes differs with the data of studies at home and abroad. But reflects at least some clinical and pathological aspects of bronchial carcinoma in Bangladesh.

**P1-180**  
**Protein expression and gene amplification of epidermal growth factor receptor in non-small cell lung cancer: correlation with chemoresponse to gefitinib therapy**  
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**Background:** The human epidermal growth factor receptor (HER) family of receptor tyrosine kinase has been demonstrated to be overexpressed in the majority of NSCLC, leading to the clinical development of molecular therapies targeting the epidermal growth factor receptor (EGFR). Among the various small molecule inhibitors of tyrosine kinase, gefitinib has been approved for clinical use in patients with previously treated advanced NSCLC. It has shown dramatic effectiveness in certain patient subsets, including women, never-smokers, adenocarcinomas, and East Asian descents. However, predictive molecular markers are yet to be determined.

**Design:** EGFR protein overexpression by immunohistochemistry and gene amplification by chromogenic in situ hybridization (CISH) were analyzed in biopsy specimens from 46 patients with advanced NSCLC. After failure of first-line treatment, 29 had received gefitinib. Time to progression (TTP) and overall survival (OS) were correlated with EGFR status.
Results: The patients included 23 male patients and 23 female patients with a median age of 62 years (mean age, 59.5 years; age range, 37-79 years). Histologically, the specimens were classified into 13 cases of squamous cell carcinoma and 33 cases of adenocarcinoma. Never-smokers made up 52.2% (24/46) of patients. EGFR overexpression was detected in 80.4% (37/46) of the tumors, and was observed exclusively in patients with partial response when compared to those with either stable or progressive disease (100% vs 76.3%; p=0.083). EGFR gene amplification was found in 48.3% (14/29) of the tumors. EGFR protein expression showed significant association with EGFR gene amplification (p=0.024). Median TTP was 6.7 months and OS was 22.6 months. OS was longer in female patients (p=0.003) and in patients with gefitinib treatment (p=0.025), partial response (p=0.037), adenocarcinoma (p=0.007), and lower T (p=0.013). The patients with EGFR overexpression and/or gene amplification had significantly prolonged OS (24.4 vs 12.4 months; p=0.005) and TTP (7.2 vs 3.4 months; p=0.083). Their stage tended to be lower (p=0.095). The multivariate analysis with Cox proportional hazards model revealed gefitinib therapy, sex, response, EGFR overexpression and gene amplification as significant prognostic factors (p=0.002, 0.048, 0.033, 0.023 and 0.042, respectively).

Conclusion: EGFR overexpression was associated with improved response to gefitinib therapy. EGFR protein expression in NSCLC was accompanied predominantly, but not exclusively, by gene amplification. However, EGFR overexpression and/or gene amplification was associated with TTP and OS, therefore, it is important to evaluate both EGFR protein expression and gene amplification status in identifying patients most likely to benefit from gefitinib therapy.

P1-181 Pathology Posters, Mon, Sept 3

Clinical significance of the AKT pathway in small cell lung cancer and other neuroendocrine tumors

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Background: Dysregulation of the AKT pathway is known to be important to develop many types of human cancer. However, little is known about the role of the AKT in neuroendocrine tumors of lung (NET). We sought to investigate p-Akt, PTEN, p-mTOR, p-TSC2, p-S6, and p-eIF4E in a large series of small cell lung cancer (SCLC), typical carcinoid (TC), atypical carcinoid (AC), and large cell neuroendocrine carcinoma (LCNEC). We also investigated the status of p-Erk1/2, which is a member of the RAS/MEK/ERK pathway, and interacts with the AKT pathway.

Methods: We immunohistochemically stained a tissue microarray with 71 SCLC, 50 TC, 30 AC, and 29 LCNEC using antibodies to PTEN, p-AKT, p-mTOR, p-TSC2, p-S6, p-eIF4E, and p-Erk1/2. A score for each case was made based on distribution and intensity of staining and positive thresholds set according to clinical/molecular correlations. Follow-up was available in 133 cases. Kaplan Meier survival analysis and chi-square statistics were made using JMP 5.0.

Results: In SCLC many correlations were found: negative p-Akt correlated with negative p-TSC2, p-S6, and p-eIF4E (p=0.025, 0.009, 0.010); negative p-TSC2 correlated with negative p-mTOR, p-S6, and p-eIF4E (p=0.004, 0.007, and 0.011); negative p-Erk1/2 correlated with negative p-TSC2 and p-S6 (p=0.012, 0.033). Expression of PTEN in SCLC cases was attenuated compared to TC and AC (p<0.001). Over-expression of p-Akt and p-S6 was observed in SCLC compared to TC or AC (p=0.044, 0.010), whereas overexpression of p-TSC2 was in TC or AC comparing to SCLC (p=0.001). Although p-Akt was overexpressed cases where PTEN was preserved (p=0.002), cases with p-Akt overexpression and PTEN preserved staining were not correlated with survival compared to the other cases. Survival correlations were found for all NET and in SCLC with overexpression of eIF4E. Additionally cases with preserved staining of PTEN showed significantly better survival among all NET.

Conclusion: Dysregulation of the AKT pathway is important in not only SCLC but other NETs with many interactions between downstream factors and prognostic correlations with p-eIF4E and PTEN.

P1-102 Prevention and Early Detection Posters, Mon, Sept 3

Responses of total antioxidant status amongst lung cancer patients

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Introduction: Lung cancer is one of the leading cause of death. The incidence of lung cancer is up cropping even in the under developing country like Nepal (2), where the changing life style, addiction, occupation hazards, social and epidemiological factors are the major cause of cancer in Nepal. Scientific research work claimed that p53 is detected as a significance role to cause the cancer (3). Our present study encourage us due to the number of patient who are provision diagnose as cancer. Our research work is mainly focused on the total antioxidant status amongst the subjects provisionally diagnosed of lung cancer.

Method: The study was conducted in lung cancer patients reports attending at Medicine and Surgery out patient department, different hospitals. This study was a form of pilot studies to asses the antioxidant status in cancer patients. A total of 108 subjects (male: 58, female 50) were chosen and an age-sex matched healthy controls of 108 subjects (male: 55, female 53). A four-day dietary recall was established to check the differences in dietary antioxidants intake in both groups. 5 ml of blood sample was collected after a written consent from the subjects and was stored at -22°C for further analysis. The total antioxidant, super oxide dismutase, and glutathione peroxidase was measured adopting a ready-made kit procured from RANDOX, Germany.

Results: Among the cancer patients the total antioxidant was relatively lowered and falling in lower borderline range to those observed in controls subjects. The results are shown in Table. No. 1 which is given below.

Discussion: In the present study carried out on lung problem patients showed that the total antioxidants was lower in cancer patients compared to the control groups. This establishes the fact that lowering of antioxidants could be the most probable cause of lung cancer. The dietary antioxidants intake in the study subjects were similar to that of...