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
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 p53, PTEN, p-Akt, p-mTOR, p-TSC2, p-S6, p-eIF4E, and p-eIF4E in SCLC cases.

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-eIF4E. 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 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). Overexpression of p-Akt and p-S6 was observed in SCLC compared to in 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.

Prevention and Early Detection
P1-182
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