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Title: Clinicopathological prognostic factors in operated for small cell lung carcinoma or large cell neuroendocrine carcinoma patients

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Body: Aim:to study the prognostic significance of N-status,pTNM stage,mTOR(phosphorilated on Ser2442) protein expression and p70S6 kinase(phosphorilated on Ser411) expression in operated for small cell lung carcinoma(SCLC) or large cell neuroendocrine carcinoma(LCNEC) patients. Material and Methods:Surgically resected specimen(men n=51;women n=15, age58.5±7.4) from 51 SCLCs and 15 LCNECs patients were studied.The N-status(N0 n=42;N1/2 n=24),pTNM stage(I+II n=42;III n=24) and immunohistochemical expression of mTOR(positive n=7/negative n=59)and p70S6(>90% n=21/≤90% n=45)were evaluated. Statistical methods:Kaplan-Meier,Wilcoxon,Cox and logistic regression analyses. Results:The 5 year survival for SCLCs was 29% and for LCNECs–55%.The difference in median survival time between SCLC(20 months)and LCNEC(62 months)was not significant(p=0.29).The median survival time was significantly longer in N0 status(N0-35 months,N1/2-18,p=0.020),in I and II pTNM status(I/II-30 months,III-16,p=0.035)and in cases expressing p70S6 in >90% of tumor cells (>90%-31 months,≤90%-16,p=0.045).The Cox analysis confirmed the prognostic significance of N status(Hazard ratio[HR]2.08;p=0.022),pTNM stage(HR 1.95;p=0.038) and p70S6 expression(HR 1.94;p=0.048).On the N-status influenced negatively the III or IV pTNM stage(Odds ratio(OR) 47.5;p<0.001)and the p70S6 expression in ≤90% of the tumor cells(OR 3.67;p=0.019).mTOR expression had no prognostic significance. Conclusions:N0-status,pTNM I/II stage and p70S6 expression in >90% of the tumor cells may represent favorable prognostic factors in SCLC and LCNEC. p70S6 kinase expression level has a statistically significant influence on N-status.