

Figure 4Proportion of PTTG-I positive tumor cells and PTTG-I staining intensities of NSCLC (N = 91); white bar represents PTTG-I negative cases; light grey and black bars represent PTTG-I low and strongly stained NSCLC tumors, respectively.

Positive tumors mostly showed more than 75% of stained cells (68/91; 74.7%). Proportions of PTTG-1 positive tumor cells between 1% and 50%, between 51% and 75% were found in 6 (6.6%) and 15 (16.5%) of all tumors, respectively, only 2 (2.2%) cases were PTTG-1 negative (Figure 4).

Prognostic value of PTTG-1 in patients with NSCLC using Kaplan-Meier survival curves

Median and mean survival rates for all 91 patients with NSCLC were found to be 401 ± 41 days and 325 ± 56 days. Patients with NSCLC had one year and five year survival rates of 46.6% and 1.2%, respectively.

No significant difference between median and mean survival was observed for tumors from patients with no or low PTTG-1 expression (p = 0.3063). Consequently, negative and low stained cases were grouped together. As a result PTTG-1 expression was negatively correlated with survival. Patients with strong PTTG-1 expression had an unfavourable prognosis showing a mean survival of 306 ± 58 days compared with patients with PTTG-1 low or PTTG-1 negative stainings with a mean survival of 463 ± 55 days (p = 0.0386; Figure 5A).

In order to exclude a possible bias due to different therapies, surgically resected patients, who had a significant better overall survival than unresected patients (p = 0.0001), were removed from the analysis. Looking at the subgroup of patients in stage IIIB and IV (n = 76) receiving

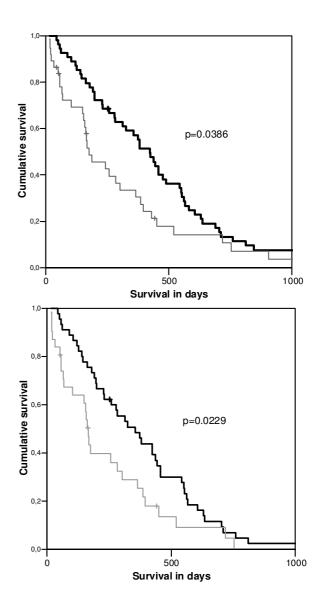


Figure 5
5A and 5B Association of PTTG-1 expression and survival in NSCLC tumors. (A): statistical difference in survival time between patients with NSCLC (n = 91) of no/low PTTG-1 expression (black line) and strong PTTG-1 expression (grey line) was seen. Patients with strong PTTG-1 expression had a significant (p = 0.0386) shorter survival time. (B): looking at PTTG-1 expression for the subgroup of patients with advanced NSCLC receiving palliative chemotherapy (n = 76), a statistically significant difference on survival time between PTTG-1 no/low expressing group (black line) and PTTG-1 strong expressing group (grey line) was observed (p = 0.0229).

palliative chemotherapy, a significant difference on survival (p = 0.0229) with regard to PTTG-1 expression was observed again (Figure 5B).