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UKUPNO PREŢIVLJAVANJE PACIJENATA SA NESITNOĆELIJSKIM KARCINOM PLUĆA NAKON HIRUŠKOG LEÇENJA


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Overall survival of patients with Non-Small Cell Lung Cancer after surgery treatment


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Brief title: Non-Small Cell Lung Cancer: Overall survival
Abstract

**Background/Aim:** Lung cancer is one of the most common malignant tumors. About 80% of all lung cancers are Non-Small Cell Lung Cancer (NSCLC). According to pathohistology characteristics, the most common types of NSCLC are squamous cell carcinoma and adenocarcinoma. The aim of this study is to evaluate the overall survival rate in the NSCLC patients initially received surgery according to its pathohistology type and TNM (T-primary tumor, N-regional lymph nodes, M-distant metastasis) stages who were treated with surgical treatment, and after that in according to TNM stage chemotherapy protocols and/or radiation therapy. **Methods:** This retrospective case series study is survival analysis according to pathohistology type and TNM stages in the patients with NSCLC during the period of ten years (2008-2017). Total number of selected patients was 85 patients (27 females and 58 males) with NSCLC who treated in Pulmonology Clinic and Clinic for Chest Surgery, Military Medical Academy. **Results:** In the patient with squamous cell carcinoma deceased were 19.5% out of 41 patients. On the other hand, in the patient group with adenocarcinoma deceased were 43.2% out of 44 patients. The average cumulative survival was statistically significantly lower in adenocarcinoma patients in comparison to patients with squamous cell carcinoma (1605.2 vs. 1304.8 days; p=0.005). On the other hand, the average cumulative survival was statistically significantly lower in our patient recurrence group with adenocarcinoma in comparison to recurrence group with squamous cell carcinoma (1212.8 vs. 1835.5 days; p=0.032). **Conclusion:** Adenocarcinoma is more aggressive cancer in comparing to squamous cell carcinoma with lower overall survival in comparing to squamous cell carcinoma. Additional studies are needed to identify risk factors for recurrence after surgery, and that additionally explained role of tumor markers and molecular biological techniques in the progression of this cancer.

**Key words:**
Non-Small Cell Lung Cancer; overall survival; recurrence
Ukupno preživljavanje pacijenata sa nesitnoćelijskim karcinom pluća nakon hiruškog lečenja

Apstrakt

Uvod/Cilj rada: Karcinom pluća je jedan od najčešćih malignih tumora. Oko 80% karcinoma pluća jeste nesitnoćelijski karcinom pluća (NSCLC). Na osnovu patohistoloških karakteristika, najčešći tipovi NSCLC su skvamocelularni karcinom i adenokarcinom. Cilj ove studije je bio da analizira preživljavanje pacijenata sa NSCLC na osnovu njihovog patohistološkog tipa i TNM (T-primarni tumor, N-regionalni limfni nodusi, M-udaljene metastaze) stadijuma koji su lečeni hiruški, a nakon toga prema TNM stadijumu hemioterapijskim protokolima i/ili radioterapijom. Metode: Ovo je retrospektivna serija slučajeva analiza preživljavanja na osnovu patohistološkog tipa i TNM stadijuma tumora kod pacijenata sa NSCLC tokom desetogodišnjeg perioda (2008-2017. godine). Ukupan broj pacijenata je bio 85 (27 žena i 58 muškaraca) sa NSCLC koji su lečeni u Klinici za pulmologiju i Klinici za grudnu hirurgiju u Vojnomedicinskoj akademiji. Rezultati: Kod pacijenata sa skvamocelularnim karcinomom stopa smrtnosti je bila 19,5% od ukupno 41 pacijenta. S druge strane, kod pacijenata sa adenokarcinomom stopa smrtnosti je bila 43,2% od ukupno 44 pacijenata. Prosečno ukupno preživljavanje je bilo statistički značajno kraće kod pacijenata sa adenokarcinomom u poređenju sa onima kojii su imali skvamocelularni karcinom (1605,2 vs. 1304,8 dana; p=0,005). S druge strane, prosečno ukupno preživljavanje je bilo statistički značajno kraće kod pacijenata sa adenokarcinomom kod kojih se javio recidiv bolesti u poređenju sa skvamocelularnim karcinomom gde se takođe javio recidiv (1212,8 vs. 1835,5 dana; p=0,032). Zaključak: Adenokarcinom je mnogo agresivniji karcinom u poređenju sa skvamocelularnim karcinomom sa kraćim ukupnim preživljavanjem. Dodatne studije su potrebne kako bi identifikovali faktore rizika za pojavu recidiva bolesti nakon hiruškog lečenja, i kako bi dodatno objasnile ulogu tumorskih markera i tehnika molekularne biologije u progresiji bolesti.

Ključne reči:
nesitnoćelijski karcinom pluća; ukupno preživljavanje; recidiv
Introduction

Today, lung cancer is one of the most common malignant tumors\(^1\)\(^-\)\(^3\). It is a leading cause of cancer-related deaths\(^1\),\(^3\). About 80% of all lung cancers are Non-Small Cell Lung Cancer (NSCLC)\(^4\). More than 65% of patients with NSCLC present in the time of diagnosis with metastatic disease or locally advanced\(^4\),\(^5\). According to pathohistology characteristics, the most common types of NSCLC are squamous cell carcinoma and adenocarcinoma\(^6\).

These present epidemiological data describe high aggressiveness of the NSCLC. The overall five-year survival rate for all lung cancer in all stages was 16.8%\(^7\). This rate varies depending on the stage of the lung cancer at the time of diagnosis: to 52.2% for localized disease, to 25% for regional metastatic disease, and to 4% for distant metastatic disease.

Non-Small Cell Lung Cancer has significantly consequences in terms of survival, life quality and decreased working ability\(^8\). Once the patient is diagnosed with clinically confirmed NSCLC a comprehensive therapeutic approach will depend on the stage of illness, histology, imaging diagnostics and tumor marker findings. Therapy in the patients with NSCLC is combined surgical treatment, radiation therapy and/or one of the cytostatic drug treatment protocols\(^8\).

Treatment of choice for patients with NSCLC from I to IIIA stages according to TNM (Tumor, Node, Metastasis) classification is surgery\(^9\). Patients with resected NSCLC from II to IIIA TNM stages, who have a high risk of relapse, in addition to surgery are treated with adjuvant chemotherapy (cisplatin or carboplatin with gemcitabine, paclitaxel, docetaxel, vinorelbin or pemetrexed) and/or radiation therapy\(^8\),\(^10\). Patients with stage IIIB and IV NSCLC are usually treated with chemotherapy and radiation therapy. In the treatment of stage I and II NSCLC, radiation therapy alone is considered only when surgical resection is not possible because of limited pulmonary reserve or the presence of comorbidities\(^11\). Generally, radiation is a reasonable option for lung cancer treatment in patients who are not candidates for surgery\(^12\). Approximately 80% of patients with NSCLC are considered for chemotherapy at some point during the course of their illness. The current standard of systemic chemotherapy protocols which are treated patients with
NSCLC are platinum-based regimens and second-line chemotherapy. Today, in these patients are using new molecular-targeted therapies as an adjunct to conventional therapy, gefitinib, bevacizumab, erlotinib, pembrolizumab, etc.

After treatment of the patients with NSCLC, the expected local and distant recurrence rates following complete resection by surgical stage are 10%, 12% and 15% for local relapse, respectively for I, II and III TNM stages. The expected distant relapses are 15%, 30%, 40% and 60%, respectively for IA, IB, II and III TNM stages.

The aim of this study is to evaluate the overall survival rate in the NSCLC patients according to its pathohistology type and TNM (T-primary tumor, N-regional lymph nodes, M-distant metastasis) stages who were treated with surgical treatment, and after that in according to TNM staging chemotherapy protocols and/or radiation therapy.

Methods

This retrospective case series study is designed as survival analysis according to pathohistology type and TNM stages in the patients with NSCLC. Total number of selected patients was 85 patients with NSCLC who were treated in Pulmonology Clinic and Clinic for Chest Surgery, Military Medical Academy.

Clinical files from all patients with clinically confirmed lung cancer admitted 2010-2015 within the institutional framework of Military Medical Academy were accessed in hard and electronic copies from the hospital registries. The following data were analyzed: demographic characteristics (age, gender), overall survival rate, according to pathohistology type and TNM stages of NSCLC.

Patients with NSCLC who were treated in our hospital are classified according to the TNM stages. Stage grouping of the TNM subsets was made to provide greater specificity for identifying patients with similar prognosis and options of treatment: T1N0M0- stage IA; T2N0M0- stage IB; T1N1M0- stage IIA; T2N1M0 and T3N0M0- stage IIB; and T3N1M0, T1N2M0, T2N2M0, T3N2M0- stage IIIA. Stage IIIB is T4 any N M0 and any T N3M0. Stage IV is any T any N M1.

The patients with I TNM stage are treated only surgery. The patients from IIA to IIIA TNM stage, after surgery, are treated with adjuvant chemotherapy, which included etoposide and cisplatin (EP/PE protocol), and/or radiation therapy.
This chemotherapy protocol was applied in the following way: cisplatin 60 mg/m² intravenously on 1st day plus etoposide 120 mg/m² intravenously on days 1-3rd every 21 days for 4 cycles or cisplatin 80 mg/m² intravenously on 1st day plus etoposide 100 mg/m² intravenously on days 1-3rd every 28 days for 4 cycles.

Radiotherapy was applied in the patients with positive resection surface for malignancy and with N2 TNM stage 8.

Continuous variables were presented as mean ± standard deviation with median values. Categorical variables were reported as frequencies unless otherwise stated. Differences between categorical variables were tested by Chi-square test, while significance of differences between continuous variables were tested by non-parametric Mann-Whitney U test. Overall survival estimates were calculated using the Kaplan-Meier method, and log-rank (Mantel-Cox) test to assess differences between two pathohistology types of NSCLC (adenocarcinoma vs. squamous cell carcinoma). Patients who were not deceased were censored at the cut-off date, that is, November 2016. A p-value <0.05 was considered statistically significant.

Ethics Committee Approval: The underlying study was conducted in line with The Declaration of Helsinki and has been approved by the regional Ethics Committee of the Military Medical Academy, decision issued on 09.06.2015.

Results

Demographic patient characteristics are presented at the table 1. Males were significantly more frequently in both pathohistology groups (80.5% out of squamous cell carcinoma; 56.8% out of adenocarcinoma). Patients with squamous cell carcinoma were significantly elder in comparison to adenocarcinoma (median age 63.56 in the patients with squamous cell carcinoma; median age 60.03 in adenocarcinoma).

In the patient group with squamous cell carcinoma deceased were 19.5% or 8 patients out of 41 (table 2). On the other hand, in the patient group with adenocarcinoma deceased were 43.2% or 19 patients out of 44. The mortality rate was significantly higher in the group of patients with adenocarcinoma (43.2%) in comparison to 19.5% in the patient group with squamous cell carcinoma (p=0.035).

Overall survival of patients according to pathohistology type of NSCLC were presented in the table 3 while cumulative survival curve provided (Kaplan-Meier analysis).
is given on the figure 1. Statistically significant difference was observed (Log Rank (Mantel-Cox) test; p=0.005) between groups. Cumulative survival was lower in patient group with adenocarcinoma in comparison to group with squamous cell carcinoma (approximately 550 days).

Overall survival patients of squamous cell carcinoma according to recurrence, as well as adenocarcinoma, were presented in the table 4. Statistically significant difference was not observed (Log Rank (Mantel-Cox) test p=0.772; p=0.295, respectively) between groups. On the other hand, cumulative survival curve of patients according to pathohistology type of NSCLC in the patients with recurrence provided (Kaplan-Meier analysis) are given on the figure 2. Statistically significant difference was observed (Log Rank (Mantel-Cox) test p=0.032) between groups. Cumulative survival was lower in patient recurrence group with adenocarcinoma in comparison to group with squamous cell carcinoma (approximately 620 days). This difference was not shown in the group without recurrence (figure 3).

Overall survival was estimated and compared among patients according to initially TNM stage in the patients with squamous cell carcinoma, as well as adenocarcinoma. Baseline information was presented in the table 5. No statistical significance was observed between patients with adenocarcinoma (p=0.665), as well as in the patients with squamous cell carcinoma (p=0.576). No statistically significant survival difference was observed (Log Rank (Mantel-Cox) test) in the patients with adenocarcinoma, as well as with squamous cell carcinoma.

On the other hand, overall survival between patients with squamous cell carcinoma and adenocarcinoma according to initially TNM stage was estimated. No statistical significance was observed between patients with adenocarcinoma vs. squamous cell carcinoma in groups with IIA and IIB stage (p=0.278), as well as IIIA stage (p=0.076) (figures 5 and 6). However, statistical significance was observed between patients with adenocarcinoma vs. squamous cell carcinoma in groups with IA and IB stage (p=0.038) (figure 4). Overall survival was lower in patient group with adenocarcinoma in comparison to group with squamous cell carcinoma in the patients with IA and IB stage (approximately 720 days).

Discussion
On the base of the Global Burden of Disease methodology, investigators estimated that there were 17.481 million cancer cases and 8.713 million deaths in 2015. Between 2005 and 2015, incident cancer cases are increased by 33% \(^3\). Incidence of tracheal, bronchus and lung cancer was estimated on 2.019 million cases, and it is located on the second place after breast cancer (2.422 million cases). Non-small cell lung cancer continues to be one of the major causes of cancer-related deaths \(^2\). Therefore, our study was aimed to assess overall survival in the patients with NSCLC according to TNM stages and pathohistology type of NSCLC.

After surgical resection of the tumor, adjuvant chemotherapy has been considered a standard modality of treatment for NSCLC in the last 15 years \(^{14-18,21}\). On the other hand, the molecularly targeted therapy has significantly improved outcomes in the treating patients with metastatic form NSCLC \(^2,18\). However, for the majority of patients platinum-based chemotherapy remains the gold standard treatment and has led to significantly improved survival outcomes between about 10-11 months median survival \(^{22}\).

In our study, males were more often in both squamous cell carcinoma and adenocarcinoma groups. Men were more likely to develop tracheal, bronchus and lung cancer in comparing to women, with 1 in 18 men and 1 in 45 women developing this cancer group between birth and age 79 years \(^3\). Similarly, in the United States, lung cancer is ranks on the second place in both genders, with an estimated 115,060 new cases in men and 106,070 in women \(^{23}\). The estimated numbers of lung cancer cases worldwide has increased by 51% since 1985 (a 44% increase in men and a 76% increase in women). The higher increasing of rates in women has been attributed to the fact that cigarette smoking in female gender peaked two decades later than in male \(^{23}\).

Our patients with squamous cell carcinoma were significantly elder in comparison to adenocarcinoma. This ratio explains fact that squamous cell carcinoma is connecting with many risk factors, smoking, diet and food supplements, alcohol, air pollution, etc \(^9\), while adenocarcinoma, although most cases are seen in smokers, it develops more frequently than squamous cell carcinoma in individuals who have never smoked \(^6\). Due to, adenocarcinoma earlier diagnosed in according to squamous cell carcinoma.

Patients with adenocarcinoma were known to result in poorer prognosis in comparing to squamous cell carcinoma \(^{24}\). Similarly, in our study, the mortality rate was significantly higher in the group with adenocarcinoma (43.2%) in comparison to 19.5% in the group with squamous cell carcinoma. On the literature, generally, for all patients with
NSCLC, the 5-year survival rate in the patients with stage IA, IB, IIA and IIB NSCLC is about 49%, 45%, 30 and 31% respectively. This rate for stage IIIA and IIIB NSCLC is about 14%, 5%, respectively.

Overall survival of patients according to recurrence it is very important. Recurrence rates reported following surgical cancer resection range from 30 to 75%. The majority of recurrent tumors are distant and more than 80% of recurrences occur within the first 2 years after resection. Cumulative survival was lower in our patient recurrence group with adenocarcinoma in comparison to group with squamous cell carcinoma, about 620 days. This fact in support that adenocarcinoma is more aggressive cancer in comparing to squamous cell carcinoma.

The completely resection of early stage NSCLC offers patients the best hope of a therapy. However, the recurrence rates post-resection remain high. Right from the start therapy in the patients with NSCLC, complete removal needs to be ensured both macroscopically and microscopically, because there are often occult micro-metastatic cancer cells, which are undetected by standard staging methods, already present systemically at the time of surgery, suggesting that there is an underestimation of the true tumor stage. Second, dissemination of cancer cells might occur during the handling of the tumor during surgery.

Overall survival according to TNM stages was not observed between patients with adenocarcinoma, as well as squamous cell carcinoma. However, statistical significance was observed between our patients with adenocarcinoma vs. squamous cell carcinoma in groups with IA and IB TNM stage, but this difference was not shown between the other groups (IIA, IIB and IIIA). Overall survival was lower about 720 days in the patient group with adenocarcinoma with IA and IB stage in comparison to squamous cell carcinoma with same stage. This fact also in support that adenocarcinoma is more aggressive cancer in comparing to squamous cell carcinoma.

After curative resection, the patients with lung cancer at the same TNM stage show wide variations in their incidence of recurrence. The current TNM staging system, which is based on clinical and pathological findings, may have achieved the limit of its usefulness. Exactly predicting the cases in which disease is likely to relapse can help guide the administration of adjuvant therapies. There are two methods for identifying factors related to recurrence following surgery: tumor markers and molecular biological techniques. Excellent prognostic markers for prediction the postoperative recurrence of
cancer are KRAS, Ki-67, p16, EGFR, etc. An extensive pathological investigation is also important, because the histological differentiation, vessel invasion, lymphatic permeation and pleural invasion have been reported poor prognostic factors for the disease free survival 28,29.

Conclusion

Adenocarcinoma is more aggressive cancer in comparing to squamous cell carcinoma with lower overall survival. Cumulative survival was lower about 550 days in adenocarcinoma patients in comparison to patients with squamous cell carcinoma. On the other hand, cumulative survival was lower in patient recurrence group with adenocarcinoma in comparison to recurrence group with squamous cell carcinoma, about 620 days.

Additional studies are needed to identify risk factors for recurrence after surgery, and that additionally explained role of tumor markers and molecular biological techniques in the progression of this cancer.

REFERENCES


### Table 1

Demographic characteristics of patient with Non-Small Cell Lung Cancer (NSCLC) according to pathohistology type

<table>
<thead>
<tr>
<th></th>
<th>Squamous cell carcinoma</th>
<th>Adenocarcinoma</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of patients (%)</strong></td>
<td>41 (48.2%)</td>
<td>44 (51.8%)</td>
<td>p=0.035*</td>
</tr>
<tr>
<td>Female</td>
<td>8 (19.5%)</td>
<td>19 (43.2%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33 (80.5%)</td>
<td>25 (56.8%)</td>
<td></td>
</tr>
<tr>
<td><strong>Age total; mean ± st.dev. (median)</strong></td>
<td>62.07±8.33 (63.56)</td>
<td>58.23±8.34 (60.03)</td>
<td>p=0.034**</td>
</tr>
<tr>
<td>Male</td>
<td>61.11±8.31 (61.99)</td>
<td>59.06±8.49 (60.85)</td>
<td>p=0.375**</td>
</tr>
<tr>
<td>Female</td>
<td>66.05±7.62 (69.03)</td>
<td>57.14±8.25 (59.01)</td>
<td>p=0.013**</td>
</tr>
<tr>
<td>p value</td>
<td>p=0.374**</td>
<td>p=0.112**</td>
<td></td>
</tr>
</tbody>
</table>

*Pearson Chi-Square tests; ** Mann-Whitney U test
### Table 2

Survival outcome of patient with Non-Small Cell Lung Cancer (NSCLC) according to pathohistology type

<table>
<thead>
<tr>
<th>Survival outcome; number of patients (%)</th>
<th>Squamous cell carcinoma</th>
<th>Adenocarcinoma</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deceased</td>
<td>8 (19.5%)</td>
<td>19 (43.2%)</td>
<td>p=0.035*</td>
</tr>
<tr>
<td>Survivors</td>
<td>33 (80.5%)</td>
<td>25 (56.8%)</td>
<td></td>
</tr>
</tbody>
</table>

*Chi-square test

### Table 3

Overall survival of patients according to pathohistology type of Non-Small Cell Lung Cancer (NSCLC)

<table>
<thead>
<tr>
<th></th>
<th>Total number</th>
<th>Number of death events</th>
<th>Censored Number (%)</th>
<th>Survival (days) – estimated mean (CI 95%)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squamous cell carcinoma</td>
<td>41</td>
<td>8</td>
<td>33 (80.5)</td>
<td>1,858.3 (1,657.8 -2,058.7)</td>
<td>p=0.005*</td>
</tr>
<tr>
<td>Adenocarcinoma</td>
<td>44</td>
<td>19</td>
<td>25 (56.8)</td>
<td>1,304.8 (1,044.5 -1,565.1)</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>85</td>
<td>27</td>
<td>58 (68.2)</td>
<td>1,605.2 (1,427.2 -1,783.2)</td>
<td></td>
</tr>
</tbody>
</table>

* Log Rank (Mantel-Cox) test
Kaplan-Meier analysis – survival curves of patients according to pathohistology type of Non-Small Cell Lung Cancer (NSCLC) (censored – alive at the end of the follow-up period)
Table 4
Distribution of overall survival of patients with Non-Small Cell Lung Cancer (NSCLC) according to recurrence

<table>
<thead>
<tr>
<th>Recurrence</th>
<th>Total number</th>
<th>Number of death events</th>
<th>Censored Number (%)</th>
<th>Survival (days) – estimated mean (CI 95%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squamous cell carcinoma</td>
<td>Yes</td>
<td>17</td>
<td>4</td>
<td>13 (76.5)</td>
<td>1,835.5 (1,533.8 -2,137.3)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>24</td>
<td>4</td>
<td>20 (83.3)</td>
<td>1,857.1 (1,597.6 -2,116.5)</td>
</tr>
<tr>
<td>Adenocarcinoma</td>
<td>Yes</td>
<td>30</td>
<td>15</td>
<td>15 (50.0)</td>
<td>1,212.8 (903.3 -1,522.3)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>14</td>
<td>4</td>
<td>10 (71.4)</td>
<td>1,450.7 (1,032.0 -1,869.5)</td>
</tr>
</tbody>
</table>

* Log Rank (Mantel-Cox) test
Kaplan-Meier analysis – survival curves in the patients with recurrence according to pathohistology type of Non-Small Cell Lung Cancer (NSCLC) (censored – alive at the end of the follow-up period); Log Rank (Mantel-Cox) test p=0.032
Kaplan-Meier analysis – survival curves in the patients without recurrence according to pathohistology type of Non-Small Cell Lung Cancer (NSCLC) (censored - alive at the end of the follow-up period); Log Rank (Mantel-Cox) test p=0.252
### Table 5

Distribution of overall survival in patients with Non-Small Cell Lung Cancer (NSCLC) according to clinically initially Tumor, Node, Metastasis (TNM) stage

<table>
<thead>
<tr>
<th></th>
<th>TNM stage</th>
<th>Total number</th>
<th>Number of death events</th>
<th>Censored Number (%)</th>
<th>Survival (days) – estimated mean (CI 95%)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Squamous cell carcinoma</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA,IB</td>
<td>10</td>
<td>1</td>
<td>9 (90.0)</td>
<td></td>
<td>2008.9 (1750.3 -2267.5)</td>
<td>0.576*</td>
</tr>
<tr>
<td>IIA,IIB</td>
<td>20</td>
<td>5</td>
<td>15 (75.0)</td>
<td></td>
<td>1624.3 (1345.2 -1903.4)</td>
<td></td>
</tr>
<tr>
<td>IIIA</td>
<td>11</td>
<td>2</td>
<td>9 (81.8)</td>
<td></td>
<td>1845.3 (1428.3 -2262.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Adenocarcinoma</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA,IB</td>
<td>13</td>
<td>6</td>
<td>7 (53.8)</td>
<td></td>
<td>1290.5 (923.4 -1657.6)</td>
<td>0.665*</td>
</tr>
<tr>
<td>IIA,IIB</td>
<td>19</td>
<td>7</td>
<td>12 (63.2)</td>
<td></td>
<td>1357.7 (980.7 -1734.7)</td>
<td></td>
</tr>
<tr>
<td>IIIA</td>
<td>12</td>
<td>6</td>
<td>16 (50.0)</td>
<td></td>
<td>1116.9 (593.5 -1640.3)</td>
<td></td>
</tr>
</tbody>
</table>

* Log Rank (Mantel-Cox) test
Figure 4
Kaplan-Meier analysis – survival curves in the patients with Non-Small Cell Lung Cancer (NSCLC) in IA and IB TNM stage according to pathohistology type (censored - alive at the end of the follow-up period); Log Rank (Mantel-Cox) test p=0.038
Kaplan-Meier analysis – survival curves in the patients with Non-Small Cell Lung Cancer (NSCLC) in IIA and IIB TNM stage according to pathohistology type (censored - alive at the end of the follow-up period); Log Rank (Mantel-Cox) test p=0.278
Kaplan-Meier analysis – survival curves in the patients with Non-Small Cell Lung Cancer (NSCLC) in IIIA TNM stage according to pathohistology type (censored - alive at the end of the follow-up period); Log Rank (Mantel-Cox) test p=0.076