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RESEARCH ARTICLE

THREE DIFFERENT TUMORS INVOLVING LUNGS AND KIDNEY IN A SINGLE PATIENT ON ELEVEN MONTHS PERIOD AN INTERESTING CASE REPORT

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ABSTRACT

It is about a70 year old male patient who underwent right nephrectomy for renal cell carcinoma, excision of the tumor in the left lower lobe for adenocarcinoma and eleven months post procedures underwent successfully redo mini thoracotomy and excision of a tumor in the left upper lobe for small cell lung cancer. Patient he did not receive any adjuvant therapy. It is an interesting case report.

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INTRODUCTION

Numerous scientists have done research for patients with cancer specially for surgical treatment and adjuvant therapy before and post surgery, trying to find the best therapy to improve patients life.

Description of the casein chronological order: Patient having exploration about his renal impairment also having an ordinary routine chest radiography an abnormality was found in the left lung. The computer tomography for the thorax showed lesion in the left lower lobe. The PET Scan was very suspicious for malignancy for the left lower lobe and right kidney. (SUV max 6,4). Patient underwent right nephrectomy (renal cell carcinoma) he had a short postoperative stay in the hospital. In a short period of time he underwent successfully mini thoracotomy excision of the tumor(adenocarcinoma) at the left lower lobe and node resection. He was discharge home the third postoperative day.

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PMH of the patient included: Renal impairment, arterial hypertension on a regular basis medication well controlled, diabetes type II on oral medication, Ischaemic microangiopathy, large bowel polypoid. Post procedures patient he was regular on filter – three times a week for his renal impairment. Patient he did not follow any chemotherapy or radiotherapy and almost a year he developed a new tumor on the left upper lobe this time. The PET Scan showed high suspicious for malignancy (SUV max 4,2). Two polypods excised from sigmoid and a week later he underwent redo mini thoracotomy and excision of the tumor in the upper lobe uneventfully. He was discharge home the second postoperative day. The pathology report confirmed small cell lung cancer. Patient one year post procedures he does very well, asymptomatic, with no disease, without and adjuvant therapy, only on his regular filter for his renal insufficiency and on regular basic follow up.

DISCUSSION

The first meta-analysis of surgery plus chemotherapy versus surgery alone was based on 34 trial comparisons and 8447 patients (3323 deaths) (NSCLC, 2010). Was recorded a benefit

of adding chemotherapy after surgery (hazard ratio [HR] 0·86, 95% CI 0·81–0·92, p<0·0001), with an absolute increase in survival of 4% (95% CI 3–6) at 5 years (from 60% to 64%) (NSCLC, 2010). The second meta-analysis of surgery plus radiotherapy and chemotherapy versus surgery plus radiotherapy was based on 13 trial comparisons and 2660 patients (1909 deaths) (NSCLC, 2010). Was recorded a benefit of adding chemotherapy to surgery plus radiotherapy (HR 0·88, 95% CI 0·81–0·97, p=0·009), representing an absolute improvement in survival of 4% (95% CI 1–8) at 5 years (from 29% to 33%) (NSCLC, 2010). In both meta-analyses was noted little variation in effect according to the type of chemotherapy, other trial characteristics, or patient subgroup.[1] In conclusion, the addition of adjuvant chemotherapy after surgery for patients with operable non-small-cell lung cancer improves survival, irrespective of whether chemotherapy was adjuvant to surgery alone or adjuvant to surgery plus radiotherapy (NSCLC, 2010).

Butts *et al*, reported that Adjuvant cisplatin-based chemotherapy (ACT) is now an accepted standard for completely resected stage II and III A non-small-cell lung cancer (NSCLC). Long-term follow-up is important to document persistent benefit and late toxicity (Butts, 2010). Also was reported that patients with completely resected stage IB (T2N0, n = 219) or II (T1-2N1, n = 263) NSCLC were randomly assigned to receive 4 cycles of vinorelbine/cisplatin or observation (Butts, 2010). All efficacy analyses were performed on an intention to treat basis. The median follow-up was 9.3 years (range, 5.8 to 13.8; 33 lost to follow-up); there were 271 deaths in 482 randomly assigned patients.[2]ACT continues to show a benefit (hazard ratio [HR], 0.78; 95% CI, 0.61 to 0.99; P = .04). There was a trend for interaction with disease stage (P = .09; HR for stage II, 0.68; 95% CI, 0.5 to 0.92; P = .01; stage IB, HR, 1.03; 95% CI, 0.7 to 1.52; P = .87).[2]ACT resulted in significantly prolonged DSS (HR, 0.73; 95% CI, 0.55 to 0.97; P = .03). Observation was associated with significantly higher risk of death from lung cancer (P = .02), with no difference in rates of death from other causes or second primary malignancies between the arms.[2] In Conclusion prolonged follow-up of patients from the JBR.10 trial continues to show a benefit in survival for adjuvant chemotherapy. This benefit appears to be confined to N1 patients (Butts, 2010). There was no increase in death from other causes in the chemotherapy arm (Butts, 2010).

Strauss GM *et al*, reported that, adjuvant chemotherapy for resected non-small-cell lung cancer (NSCLC) is now accepted on the basis of several randomized clinical trials (RCTs) that demonstrated improved survival. Although there is strong evidence that adjuvant chemotherapy is effective in stages II and IIIA NSCLC, its utility in stage IB disease is unclear. This report provides a mature analysis of Cancer and Leukemia Group B (CALGB) 9633, the only RCT designed specifically for stage IB NSCLC (Strauss, 2008). Was documented that within 4 to 8 weeks of resection, patients were randomly assigned to adjuvant chemotherapy or observation. Eligible patients had pathologically confirmed T2N0 NSCLC and had undergone lobectomy or pneumonectomy. Chemotherapy consisted of paclitaxel 200 mg/m(2) intravenously over 3 hours and carboplatin at an area under the curve dose of 6 mg/mL per minute intravenously over 45 to 60 minutes every 3 weeks for four cycles. The primary end point was overall survival (Strauss, 2008).

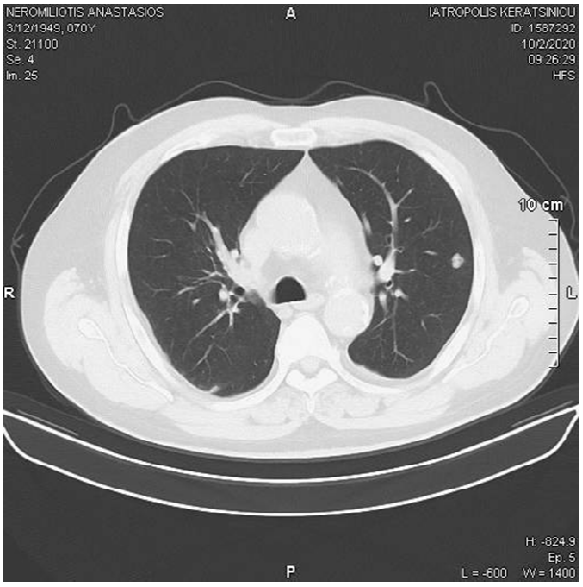

Image 1. Left upper lobe lesion on the CT Chest

Was found that Three hundred-forty-four patients were randomly assigned. Median follow-up was 74 months. Groups were well-balanced with regard to demographics, histology, and extent of surgery. Grades 3 to 4 neutropenia were the predominant toxicity; there were no treatment-related deaths. Survival was not significantly different (hazard ratio [HR], 0.83; CI, 0.64 to 1.08; P = .12). However, exploratory analysis demonstrated a significant survival difference in favor of adjuvant chemotherapy for patients who had tumors > or = 4 cm in diameter (HR, 0.69; CI, 0.48 to 0.99; P = .043).[3] Finally, because a significant survival advantage was not observed across the entire cohort, adjuvant chemotherapy should not be considered standard care in stage IB NSCLC. Given the magnitude of observed survival differences, CALGB 9633 was underpowered to detect small but clinically meaningful improvements.[3]A statistically significant survival advantage for patients who had tumors > or = 4 cm supports consideration of adjuvant paclitaxel/carboplatin for stage IB patients who have large tumors (Strauss, 2008).

A critical review of PubMed/Medline, Embase, and the Cochrane Library in January 2018 according to the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) statement was performed by Sun *et al*.[4]Contradictory data exist with regard to adjuvant vascular endothelial growth factor receptor (VEGFR)-targeted therapy in surgically managed patients for localized renal cell carcinoma (RCC) (Sun, 2018). The three randomized controlled phase III trials included the following comparisons: sunitinib versus placebo or sorafenib versus placebo (Adjuvant Sorafenib or Sunitinib for Unfavorable Renal Carcinoma [ASSURE] study, n=1943), sunitinib versus placebo (S-TRAC, n=615), and pazopanib versus placebo (Pazopanib As Adjuvant Therapy in Localized/Locally Advanced RCC After Nephrectomy study, n=1135). The NNT ranged from 10 (S-TRAC) to 137 (ASSURE study). The pooled analysis showed that VEGFR-targeted therapy was not statistically significantly associated with improved DFS (hazard ratio [HR_{random}]: 0.92, 95% confidence interval [CI]: 0.82-1.03, p=0.16) or OS (HR_{random}: 0.98, 95% CI: 0.84-1.15, p=0.84) compared with the control group. The adjuvant therapy group experienced significantly higher odds of grade 3-4 AEs (OR_{random}: 5.89, 95% CI: 4.85-7.15, p<0.001).

In exploratory analyses focusing on patients who started on the full-dose regimen, DFS was improved in patients who received adjuvant therapy (HR_{random}: 0.83, 95% CI: 0.73-0.95, p=0.005).[4] In conclusion, this analysis of reported randomized trials did not reveal a statistically significant effect between adjuvant VEGFR-targeted therapy and improved DFS or OS in patients with intermediate/high-risk local or regional fully resected RCC.[4] Improvement in DFS may be more likely with the use of full-dose regimens, pending further results. However, adjuvant treatment was associated with high-grade AEs (Sun, 2018). Finally, vascular endothelial growth factor receptor-targeted therapy after nephrectomy for localized kidney cancer is not associated with consistent improvements in delaying cancer recurrence or prolonging life and comes at the expense of potentially significant side effects (Sun, 2018). Although chemotherapy and radiation therapy currently are recommended in limited-stage small cell lung cancer (L-SCLC),several small series have reported favorable survival outcomes in patients who underwent surgical resection (Schreiber, 2010). The authors of this report used a US population-based database to determine survival outcomes of patients who underwent surgery (Schreiber, 2010).

The Surveillance, Epidemiology, and End Results (SEER) registry was used to identify patients who were diagnosed with L-SCLC between 1988 and 2002 coded by SEER as localized disease (T1-T2Nx-N0) or regional disease (T3-T4Nx-N0). Kaplan-Meier and Cox regression analyses were used to compare overall survival (OS) for all patients. In total, 14,179 patients were identified, including 863 patients who underwent surgical resection. Surgery was associated more commonly with T1/T2 disease (P < .001) (Schreiber, 2010). Surgery was associated with improved survival for both localized disease and regional disease with improvements in median survival from 15 months to 42 months (P < .001) and from 12 months to 22 months (P < .001), respectively (Schreiber, 2010). Lobectomy was associated with the best outcome (P < .001). Patients with localized disease who underwent lobectomy with had a median survival of 65 months and a 5-year OS rate of 52.6%; whereas patients who had regional disease had a median survival of 25 months and a 5-year OS rate of 31.8% (Schreiber, 2010). On multivariate analysis, the benefit of surgery varied in a time-dependent fashion. However, the benefit of lobectomy remained across all time intervals (P = .002) (Schreiber, 2010).

The use of surgery, and particularly lobectomy, in selected patients with L-SCLC was associated with improved survival outcomes (Schreiber, 2010). Future prospective studies should consider the role of surgery as part of the multimodality management of this disease (Schreiber, 2010).

Conclusion

Protocols and guidelines really help to organize a strategic plan for effective therapy for patients with cancer. Perhaps we should keep in our mind that there not only diseases but also patients who respond differently to therapies.

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