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COMPARATIVE STUDY OF CONCURRENT CHEMORADIATION USING PACLITAXEL IN TWO HISTOPATHOLOGICAL SUBTYPES (SQUAMOUS CELL CARCINOMA/ADENOCARCINOMA) OF UNRESECTABLE NON-SMALL CELL LUNG CANCER

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Background. *Lung cancer is still a global burden and with rising population and increasing life expectancy the incidence of lung cancer is still on the rise.*

Objective. *To compare the treatment response and toxicity of weekly paclitaxel in locally advanced unresectable non-small cell lung cancer (NSCLC), when administered concurrently with external beam radiation to the chest in two different histopathological types – adenocarcinoma and squamous cell carcinoma.*

Methods. *A prospective randomised control trial was conducted in 60 NSCLC patients who were divided into two arms; adenocarcinoma and squamous cell carcinoma arm. All patients were treated with chemoradiation with concurrent paclitaxel 60 mg/m^2. Data were evaluated with SPSS version 21.0 for windows with p-value <0.05.*

Results. *Haematological toxicity was the most common side effects evident from the third week of chemotherapy. At the end of 1 month of treatment, two (6.7%) patients had complete response in Arm A and one (3.3%) patient had complete response in Arm B. One (3.3%) patient had disease progression in Arm A and two patients progressed in Arm B. At 7 months post treatment three (10%) patients had complete response in both Arm A and Arm B. Four (13.3%) patients had disease progression in Arm A and ten (33.4%) patients progressed in Arm B.*

Conclusions. *Paclitaxel can be used as an alternative chemotherapeutic agent to the standard cisplatin. However, further studies with larger sample size are required to confirm the findings.*

KEYWORDS: unresectable; concurrent; adenocarcinoma; squamous cell.

Introduction

Lung cancer is one of the commonest cancers and the most common cause of cancer related mortality all over the world [1]. Lung cancer comprises two main histopathological groups - non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC). The major histologic subclasses of NSCLC are adenocarcinoma (50%), squamous cell carcinoma (30-40%) and undifferentiated large cell carcinoma (10%) [2].

Approximately 80% of cases of non-small cell lung cancer (NSCLC) in men and 50% of these neoplasms in women worldwide are directly attributable to cigarette smoking. Other contributing factors includes passive smoking, genetic predisposition to this disease, occupational and environmental exposures including asbestos and silica fibres and ionizing radiation [3].

More than 70% of patients diagnosed with lung cancer present with advanced stage disease (stage III or IV) that is usually beyond surgical intervention [4]. According to the 7th edition AJCC staging classification, stage III NSCLC is often defined as locally advanced NSCLC. Stage IIIA (T1-3 N2, T3-T4 N1, T4 N0) disease involves hilar or mediastinal lymph nodes limited to the ipsilateral mediastinum and a subset of these patients are amenable to surgery. However, stage IIIB (T1-4 N3, or T4 N2) involves lymph node metastasis in the contralateral thorax or supraclavicular fossa and/ or an unresectable primary tumour, making patients with this disease not ideal candidates

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for surgical resection [5]. Concurrent chemoradiation is the mainstay of treatment in patients with locally advanced, unresectable, non-small-cell lung cancer which improved survival by reducing local tumour burden and also delaying the emergence of metastatic disease [6]. Long-term outcomes are poor, with baseline 5-year overall survival (OS) of 15%-35% for stage IIIA and 5%-10% for stage IIIB [7].

The platinum-based combination regimens are considered to be the standard treatment. But due to high incidence of platinum induced chemotoxicities and platinum resistance in many cases, a third-generation chemotherapeutic agent taxens e.g. paclitaxel were tried; they possess good activity as single agent in cases of NSCLC resulting in the arrest of cells in the G_2-M phase of the cell cycle, which is particularly responsible for much of the radiosensitizing ability of paclitaxel [8].

Even though both adenocarcinoma and squamous cell carcinoma are grouped as NSCLC, both the subtypes differ in many aspects. The monolithic treatment approach to both types of NSCLC has dramatically changed over last few years with the advent of molecular subtyping and novel histology specific targeted therapies [9].

Though, several studies have established the role of paclitaxel in NSCLC, the relative outcome response in different histopathologies (adenocarcinoma/squamous cell carcinoma) is still not clear. Hence, the present study will be aiming to compare treatment response and treatment toxicity patterns between unresectable adenocarcinoma and squamous cell carcinoma of lung treated with concurrent chemoradiation using paclitaxel.

Methods

A randomized control trial had been undertaken in the Department of Radiation Oncology, Regional Institute of Medical Sciences, Imphal, Manipur, over a period of 2 years starting from August 2017 to July 2019. The permission of the Research Ethics Board RIMS, Imphal, Manipur, was obtained to conduct the study. Initial 18 months was for patient accrual; the study and result analysis were performed after allowing minimum of 6 months follow-up for the patients.

The patients, who were histopathologically confirmed cases of unresectable non-small cell lung cancer (adenocarcinoma/squamous cell carcinoma) reporting to the Department of Radiation Oncology, RIMS, Imphal, Manipur, with Karnofsky Performance Status (KPS) ≥60%, age below 80 years, without any major comorbidity and willing to give consent, were included in the study.

The sample size is calculated using the formula:

$$N = \frac{(u+v)^2\,[\{p_1\,(100-p_1)\}] + [\{p_2\,(100-p_2)\}]}{p_1 - p_2}$$

Where N is the size per group, u=0.84 at 80% power, v=1.645 at 90% level of significance

p_1= proportion in one group =100, p_2= proportion in another group =81 [10].

Therefore, sample size of 60 (30 patients in each arm) will be considered for the study.

Patients were distributed into two separate arms – Arm A (adenocarcinoma) and Arm B (squamous cell carcinoma). Both arms received external beam radiation therapy (EBRT) by cobalt-60 teletherapy machine (Theratron 780-C. Model number: A112109-101) with a source to skin distance (SSD) of 80 cm to a total tumour dose of 60 Gy over 30 fractions five days in a week for six weeks by two opposing postero-anterior fields. Spinal cord was spared after 46Gy/23 fractions. Concurrent chemotherapy with injection paclitaxel at a dose of 60 mg/m^2 in 500 ml 0.9% normal saline over 3 hours intravenous weekly before radiotherapy for 6 weeks was administered along with all the necessary pre-medications.

During concurrent chemoradiation (CCRT), the patients were evaluated weekly for development of any skin, pulmonary or oesophageal toxicity. Acute treatment toxicity was evaluated weekly during course of treatment and late treatment toxicity was evaluated monthly till the end of the treatment in accordance with RTOG criteria [11]. The early treatment response was assessed at 1 month and it was assessed again at 7 months following completion of CCRT, in accordance with RECIST criteria [12]. After completion of CCRT, patients were followed up monthly for a minimum period of 6 months and thereafter every 2 months.

Statistical analysis: Descriptive data like age was presented in terms of mean and standard deviation. Data like sex, stage, response and toxicity profile was presented in terms of percentages and proportions. Data entry and statistical analysis was conducted using IBM SPSS statistics 21 for windows (IBM Corp, 1995, 2012). Statistical significance was analysed using the chi square and Fisher's Exact Test and p-value of <0.05 was considered statistically significant.

Results

It is established that most of the patients fall in the age range of 61-70 years with 46.7% in arm A and 50% in arm B. We can also appreciate that in younger age group 51-60 years adenocarcinoma lung are more than squamous cell carcinoma (40% vs 30%) while in older age group squamous cell carcinoma are slightly more than adenocarcinoma in this study.

Out of 30 patients in Arm A, 17 (56.7%) patients were female and 13 (43.3%) patients were male. In Arm B, 19 (59.4%) patients were male and 11 (39.3.%) were female. The sex-wise distribution shows that adenocarcinoma is more common in females whereas squamous cell carcinoma is more common in males. Majority of the patients had 80% KPS where 15 (43.3 %) patients were in Arm A and 16 (53.3%) patients in Arm B. In Arm A adenocarcinoma patients, cough was the most common presentation followed by dyspnoea, chest pain, and haemoptysis. In arm B squamous cell cancer patients, cough also was the most common presentation followed by haemoptysis, dyspnoea and chest pain.

In arm A, 46.7% disease were found in the right lung whereas 53.3% of disease were found in the left lung. In Arm B, 43.3% disease were found in the left lung whereas 56.67% of disease were found in the right lung. In stage IIIA, 8 (26.6%) patients were in Arm A and 10 (33.3%) in Arm B. While in stage IIIB, 22 (73.3%) and 20 (66.7%) were in Arm A and Arm B respectively. This distribution shows the p-value of 0.389 which is statistically insignificant (Fig. 1).

Early toxicities particularly nausea/vomiting and haematological parameters were assessed after each cycle of chemotherapy. During radiation treatment lung and oesophageal toxicity were assessed every week for 6 weeks. The most common side effects during CT were anaemia (63.33% in Arm A and 53.33% in Arm B) during the third week, neutropenia (36.66% and 33.33% in Arm A and Arm B respectively) seen mostly during the 3rd week, thrombocytopenia (16.66% and 40% in Arm A and Arm B respectively) during the 4th cycle of CT and were mostly grade 1. None of the patients in both arms experienced peripheral neuropathy. The side effects of RT were mostly seen from the 3rd week after starting of treatment in both arms and the most common toxicity experienced was grade 1 lung and esophagus toxicity (Table 1).

In 1 month of treatment the result shows a significant improvement of the symptoms in both the Arms. Arm A shows most significant improvement in dyspnoea and chest pain with the p-value of 0.487 and 0.471, respectively, which was statistically not significant. Whereas arm B shows improvement in cough with the p-value of 0.128 and haemoptysis with the p-value of 0.487, which were statistically not significant (Table 2).

The median follow-up duration of patients was estimated to be 17±2.87 months in Arm A and 17±3.73 months in Arm B (p-value 0.634). All the 60 patients (in both arms) were available for assessment at the end of the 1st month. Two complete responses and 24 partial responses were obtained in Arm A (adenocarcinoma arm). One complete response and 23 partial responses were obtained in the Arm B (squamous cell carcinoma arm). The response rates were 86.66% with Arm A and 79.99% with Arm B (all assessable patients). The differences were statistically significant (p=0.000). The disease

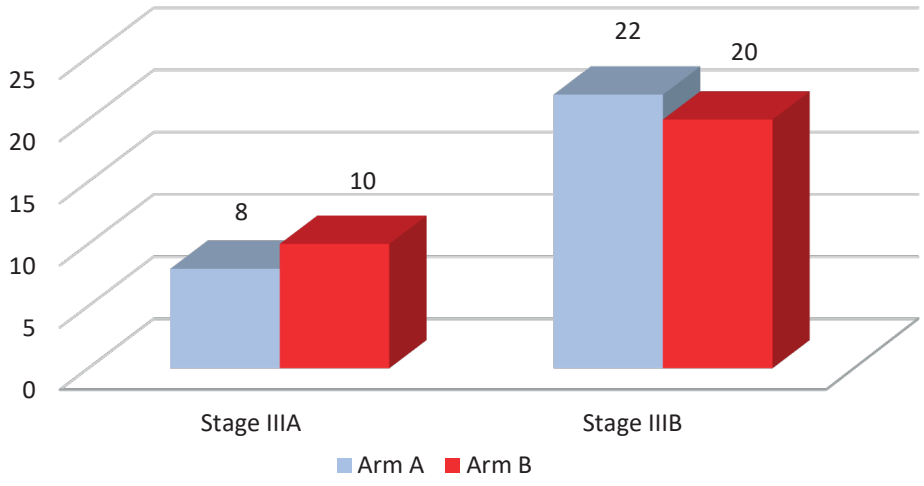

Fig. 1. *Stage distribution in both the arms.*

Table 1. Early radiation toxicity

Symptom	Week	Grade	Arm A	Arm B
Cough	Week 3	1	20 (66.67%)	21 (70%)
	Week 4	1	21 (70%)	21 (70%)
	Week 5	1	23 (76.7%)	23 (76.7%)
	Week 6	1	23 (76.7%)	23 (76.7%)
Esophagitis	Week 3	1	18 (60%)	19 (63.3%)
		2	6 (20%)	4 (13.33%)
	Week 4	1	16 (53.33%)	11 (36.66%)
		2	7 (23.33%)	4 (13.33%)
	Week 5	1	19 (63.3%)	19 (63.3%)
		2	6 (20%)	3 (10%)
		3	1 (3.33%)	0 (0%)
	Week 6	1	18 (60%)	18(60%)
		2	5 (16.7%)	3 (10%)
		3	3 (10%)	0 (%)
Nausea/vomiting	Week 3	1	3 (10%)	4 (13.33%)
	Week 4	1	6 (20%)	2 (6.66%)
	Week 5	1	2 (6.66%)	2 (6.66%)
	Week 6	1	2 (6.6%)	3 (10%)
Haemoglobin	Week 3	1	19 (63.33%)	16 (53.33%)
		2	0 (0%)	3 (10%)
	Week 4	1	14 (46.66%)	13 (43.33%)
		2	5 (16.66%)	1 (3.33%)
	Week 5	1	16 (53.33%)	11 (36.66%)
		2	3 (10%)	1 (3.33%)
	Week 6	1	16 (53.33%)	5 (16.66%)
		2	3 (10%)	0 (0%)
TLC	Week 3	1	11 (36.66%)	10 (33.33%)
		2	0 (0%)	2 (6.66%)
	Week 4	1	6 (20%)	9 (30%)
		2	5 (16.66%)	3 (10%)
	Week 5	1	6 (20%)	9 (30%)
		2	5 (16.66%)	3 (10%)
	Week 6	1	9 (30%)	9 (30%)
		2	3 (10%)	3 (10%)
Platelet	Week 3	1	9 (30%)	10 (33.33%)
		2	0 (0%)	2 (6.66%)
	Week 4	1	5 (16.66%)	12 (40%)
		2	0 (0%)	1 (3.33%)
	Week 5	1	5 (16.66%)	11 (36.66%)
		2	0 (0%)	1 (3.33%)
	Week 6	1	5 (16.66%)	6 (20%)
		2	0 (0%)	1 (3.33%)
Peripheral neuropathy			–	–

stabilized in three patients in Arm A and in four patients in the Arm B. Early progression (during therapy) occurred in 1 patient in treatment Arm A (adenocarcinoma) and 2 patients in Arm B (squamous cell carcinoma). In adenocarcinoma arm, 77.77% of the patients in stage IIIA and 90.47% of the patients in stage IIIB had a good response to the treatment, whereas about 80% of the patients in both stage IIIA and stage IIIB had a good response to the treatment in squamous cell carcinoma arm (Table 3).

The late side effects of treatment were assessed as per RTOG criteria [11]. In both Arm A and Arm B, toxicities were assessed monthly

Table 2. Symptomatic response before and after treatment

Symptoms	Grade	Pre-treatment symptoms		Symptoms after 1 month of treatment		P-value
		Arm A	Arm B	Arm A	Arm B	
Cough	1	20 (66.66%)	9 (30%)	13 (43.33%)	12 (40%)	0.128*
	2	5 (16.66%)	13 (43.33%)	5 (16.66%)	0 (0%)	
	3	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Chest pain	1	10 (33.33%)	4 (13.33%)	8 (26.66%)	7 (23.33%)	0.471*
	2	5 (16.66%)	4 (13.33%)	0 (0%)	2 (6.66%)	
	3	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Dyspnoea	1	19 (63.33%)	8 (26.6%)	6 (20%)	5 (16.66%)	0.487*
	2	4 (13.33%)	0 (0%)	2 (6.66%)	0 (0%)	
	3	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Haemoptysis	1	6 (20%)	9 (30%)	5 (16.66%)	6 (20%)	0.487*
	2	1 (3.33%)	5 (16.66%)	0 (0%)	2 (6.66%)	
	3	0 (0%)	0 (0%)	0 (0%)	0 (0%)	

*Note. * – Fisher's Exact test.*

Table 3. Early treatment response at the end of the 1st month, Arm A versus Arm B

Treatment response	Treatment Arm		P-value
	Arm A	Arm B	
CR	2 (6.66%)	1 (3.33%)	0.000*
PR	24 (80%)	23 (76.66%)	
SD	3 (3.33%)	4 (13.33%)	
PD	1 (3.33%)	2 (6.66%)	
Total	30	30	

*Note. * – Fisher's Exact test.*

after completion of treatment for 6 months. The most common late side effects of treatment were grade 1 lung fibrosis (50% in Arm A and 46.7% in Arm B) at the 6th month, grade 1 oesophageal toxicity (50% in Arm A and 40% in Arm B) at the 6th month and grade 1 cardiac toxicity (16.7% and 3.3% in Arm A and Arm B respectively). None of the patients in both arms experienced myelitis or nephrotoxicity (Table 4).

At the end of the 7th months in Arm A, 17 (56.6%) patients had partial response, 6 (20%) patients had stable disease, 3 (10%) – complete response and 4 (13.3%) – progression of the diseases. About 23.3% of the patients in stage IIIA and 43.3% of the patients in stage IIIB had a good response to the treatment. In Arm B, 3 (10%) patients had complete response, 12 (40%) patients – partial response, 5 (16.6%) patients – stable disease and 10 (33.4%) – progression of the disease. Late treatment responses were statistically significant (p-value 0.000) (Table 5).

Discussion

The two study groups were formed by histopathology – Arm A adenocarcinoma, Arm B squamous cell carcinoma, but all other patient characteristics in both groups were well balanced without statistically significant differences in age, stage, KPS.

In this study, adenocarcinoma lung was more than squamous cell carcinoma (40% vs 30%) in the younger age group, while in the older age group squamous cell carcinoma was slightly more than adenocarcinoma. This is in consistent with the study conducted by A.L. Rich et al [13].

The sex wise distribution was similar to the study by Price PW et al, where adenocarcinoma was more common in women than in men (41% versus 31%, p<0.0001) and squamous cell carcinoma more common in men than women (43% versus 31%, p<0.0001) [14].

Toxicity profile (acute toxicities)

In this study, during 6 weeks of treatment it was observed that toxicities were mostly seen at the 3rd week after treatment starting with grade 1 lung and esophageal toxicity being the most common in both the arms. This was similar to a study conducted by Huber RM et al,

Table 4. Side effects of treatment, assessed monthly for 6 months post treatment

Adverse effects		Arm A	Arm B	P-value
Lung fibrosis				
Month 1	Grade 1	15 (50%)	16(53.3%)	0.000*
	Grade 2	2 (6.7%)	2 (6.7%)	
	Grade 3	0 (0%)	0 (0%)	
Month 2	Grade 1	15 (50%)	19 (63.3%)	0.000*
	Grade 2	2 (6.7%)	2 (6.7%)	
	Grade 3	0 (0%)	0 (0%)	
Month 3	Grade 1	18 (60%)	17 (56.7%)	0.000*
	Grade 2	3 (10%)	3 (10%)	
	Grade 3	0 (0%)	0 (0%)	
Month 4	Grade 1	17 (56.7%)	17 (56.7%)	0.000*
	Grade 2	3 (10%)	3 (10%)	
	Grade 3	1 (3.3%)	2 (6.7%)	
Month 5	Grade 1	19 (63.3%)	17 (56.7%)	0.000*
	Grade 2	5 (16.7%)	3 (10%)	
	Grade 3	2 (6.7%)	2 (6.7%)	
Month 6	Grade 1	15 (50%)	14 (46.7%)	0.000*
	Grade 2	8 (26.7%)	7 (23.3%)	
	Grade 3	2 (6.7%)	3 (10.0%)	
Dysphagia				
Month 1	Grade 1	5 (16.7%)	4 (13.3%)	0.000*
	Grade 2	0 (0%)	0 (0%)	
	Grade 3	0 (0%)	0 (0%)	
Month 2	Grade 1	7 (23.3%)	6 (20%)	0.000*
	Grade 2	0 (0%)	0 (0%)	
	Grade 3	0 (0%)	0 (0%)	
Month 3	Grade 1	7 (23.3%)	7 (23.3%)	0.000*
	Grade 2	2 (6.7%)	1 (3%)	
	Grade 3	0 (0%)	0 (0%)	
Month 4	Grade 1	9 (30%)	10 (33.3%)	0.000*
	Grade 2	3 (10%)	2 (6.7%)	
	Grade 3	0 (0%)	0 (0%)	
Month 5	Grade 1	9 (30%)	11 (36.7%)	0.000*
	Grade 2	5 (16.7%)	3 (10%)	
	Grade 3	0 (0%)	0 (0%)	
Month 6	Grade 1	15 (50%)	12 (40%)	0.000*
	Grade 2	6 (20%)	3 (10%)	
	Grade 3	0 (0%)	0 (0%)	
Cardiac toxicity	Grade 1	5 (16.7%)	1 (3.3%)	0.000*
	Grade 2	0 (0%)	0 (0%)	
	Grade 3	0 (0%)	0 (0%)	
Myelitis		–	–	
Nephrotoxicity		–	–	

*Note. * – Fisher's Exact test.*

Table 5. Treatment Response at the end of the 7th months

	Late treatment response				P-value
	CR	PR	SD	PD	
Arm A	3 (10%)	17 (56.6%)	6 (20%)	4 (13.3%)	0.000
Arm B	3 (10%)	12 (40%)	5 (16.6%)	10 (33.4%)	

where grade 3 esophageal toxicity was seen in 13% [15], but was much lower than RTOG 94-10 trial, where grade 3 esophageal toxicity with CCRT was seen in 22% [16].

Haematological toxicities were also present and comparable in both arms. Other studies also showed that neutropenia was a common toxicity with paclitaxel [17,18]. However, in this study, in both arms none of the patients experienced peripheral neuropathy. This may be due to the low dose of injection paclitaxel (60 mg/m^2) used in the study [19].

Nausea and vomiting were not common and grade 1 nausea was present in only 10% and 13.33% in Arm A and Arm B, respectively, at week 3. This may be due to low emetogenic potential of paclitaxel that has also been proven by other studies [20,21].

Tumour response rate after treatment

The response rates in both the Arms were similar to the rates in other trials [22,23]. The findings of this study are consistent with that by Choy H et al, where 86% of overall response rate have been achieved: adenocarcinoma having 100% partial response and squamous cell carcinoma having 86% partial response. Patients with stage IIIB disease responded equally to stage IIIA disease (82% and 92%, respectively; p=0.62) [10]. In this study, since the response rates achieved in both arms are comparable, a conclusion could be drawn that response rates of weekly paclitaxel in adenocarcinoma lung and squamous cell carcinoma lung are similar.

Symptomatic response post treatment

Buccheri G et al conducted a single institute study on lung cancer clinical presentation and found that the most alarming symptoms with adenocarcinoma lung was cough (18.4%) followed by chest pain (13.7%), bloody sputum (13.4%) and dyspnoea (11.7%). The alarming symptoms of squammous cell carcinma were bloody sputum (24%) followed by cough (19%), chest pain (10.7%) and dyspnoea (10.4%) [24]. This was almost similar with our study.

Regarding assessment of symptom response, in 1 month significant improvement of all the symptoms in both the arms was evidenced that is similar to the studies by Barwal KV et al [25] and Langendijk et al [26].

Treatment response (at the end of the 7th months):

At the end of the 7th months, 4 patients in arm A and 10 patients in arm B had disease progression in this study. Bone is the most frequent site of distant metastasis followed by liver and brain. In a study conducted by Liew SM et al locoregional, contralateral relapses, and distant metastases were observed in 34 (45%), 16 (21%), and 47 (63%) patients, respectively. Among the 47 patients with late relapse, bone metastases were observed in 16 (34%) patients and were the most frequent site of distant metastases. This was followed by liver (n=13.28%), brain (n=12.26%), and adrenal (n= 4.9%) [27]. Those with adenocarcinoma showed adrenal metastases in 54% of cases followed by liver metastases (27%). Squamous cell carcinoma spread to the liver in 67% of cases as well as to adrenal glands and bones (33% each) [28].

Toxicity assessment (late toxicities)

In this study after 6 months of treatment grade 1 lung fibrosis was evidenced in 50% of the patients in Arm A and 46.7% of the patients in Arm B after radiological assessment with chest x-ray and/or CT scan thorax. This was much higher than the old RTOG data, where the average incidence of pneumonitis (grade 2 and above) and fibrosis was 14.6% and 28%, respectively, after 2DRT [29].

Grade 1 cardiac toxicity was seen in 16.7% of patients in Arm A and 3.3% of patients in Arm B. Arm A had a slightly higher percentage of cardiac toxicity. This might have been due to greater number of left sided lung tumours in Arm A (53.33%) compare to Arm B (43.33%), where portion of heart could not be avoided in the radiation.

In this study grade 1 oesophageal toxicity was another radiation toxicity with no grade 3 or higher esophageal toxicity evidenced in both arms. A study conducted by Curran JW et al found that in CCRT arm grade 3 esophageal toxicity was present in 3% patients and grade 4 esophageal toxicity – in 1% patients only [16].

Conclusions

Locally advanced non-small cell lung cancer (LA NSCLC) comprises the most heterogeneous group of patients. Over the years even with continuous evolution of treatment strategies, overall survival (OS) is still low and management of stage III LA NSCLC is still a challenge today. The results after 1 month showed significant improvement of symptoms in both the arms and the responses were comparable in both the arms. This study is one of the first ones on comparison of efficacy of paclitaxel as a radiosensitiser in CCRT in two main histopathological types of non-small cell lung cancer (adenocarcinoma and squamous cell carcinoma) of this region with limitations of small sample size

and the short study duration for which survival benefit could not be analysed. Further studies have to be done on a larger population and over a longer study period to confirm the findings of this study.

Conflict of Interests

Authors declare no conflict of interest.

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Author's Contributions

Daffilyne Lyngdoh Nongrum, Yumkhaibam Sobita Devi, Laishram Jaichand Singh – conceptualization, methodology, formal analysis, writing – original draft; *Daffilyne Lyngdoh Nongrum, Srigopal Mohanty, Kishalay Baidya* – data curation, writing – reviewing and editing; *Deiwakor Chyrmang, Hari Krishna Rai* – investigation, formal analysis.

ПОРІВНЯЛЬНЕ ДОСЛІДЖЕННЯ ОДНОЧАСНОЇ ХІМІОПРОМЕНЕВОЇ ТЕРАПІЇ З ВИКОРИСТАННЯМ ПАКЛІТАКСЕЛУ У ДВОХ ГІСТОПАТОЛОГІЧНИХ ПІДТИПАХ (ПЛОСКОКЛІТИННИЙ РАК/АДЕНОКАРЦИНОМА) НЕРЕЗЕКЦІЙНОГО НЕДРІБНОКЛІТИННОГО РАКУ ЛЕГЕНІВ

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Вступ. *Рак легень все ще є глобальною проблемою і з ростом населення та збільшенням тривалості життя захворюваність на рак легень продовжує зростати.*

Мета. *Порівняння відповіді на лікування та токсичність тижневої терапії паклітакселом при локально розповсюдженому нерезектабельному недрібноклітинному раку легенів (НДРЛ), що застосовується одночасно із зовнішнім променевим випромінюванням у грудну клітку при двох різних гістопатологічних типах аденокарциноми та плоскоклітинної карциноми.*

Методи. *Проспективне рандомізоване контрольне дослідження було проведено у 60 пацієнтів з НДРЛ, які були розділені на дві групи: А (аденокарцинома) та Б (плоскоклітинна карцинома). Всім пацієнтам проводили хіміопроменеву терапію одночасно з паклітакселом 60 мг/м^2. Дані були оцінені за допомогою статистичного пакету SPSS версії 21.0 для Windows з p-значенням <0,05.*

Результати. *Гематологічна токсичність була найпоширенішим побічним ефектом, який проявлявся на третьому тижні хіміотерапії. Наприкінці 1 місяця лікування у двох (6,7%) пацієнтів була повна відповідь у групі А, а у одного (3,3%) пацієнта була повна відповідь у групі Б. У одного (3,3%) пацієнта прогресувала хвороба у групі А, а у двох пацієнтів було прогресування у групі Б. Через 7 місяців після лікування три (10%) пацієнти мали повну відповідь як у групі А, так і в групі Б. У чотирьох (13,3%) пацієнтів прогресування захворювання в групі А було у десяти (33,4%) пацієнтів.*

Висновки. *Паклітаксел можна використовувати як альтернативний хіміотерапевтичний засіб стандартному цисплатину. Однак для підтвердження результатів необхідні подальші дослідження з більшим розміром вибірки.*

КЛЮЧОВІ СЛОВА: нерезектабельний; одночасна терапія; аденокарцинома; плоскоклітинний рак.

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