



HISTOPATHOLOGIC SPECTRUM OF LUNG BIOPSIES:A RETROSPECTIVE STUDY

Pathology

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ABSTRACT

Introduction: Lung cancer is the leading cause of cancer-related death worldwide and being increasingly detected in India due to increased awareness about bronchogenic carcinoma and improved diagnostic techniques. **Materials and methods:** A retrospective hospital based study was done in which a total of 38 cases of lung lesions were included. **Results:** Maximum number of cases was observed in age group 41-50 years and there were 26(68.4%)male and 12(31.5%)female cases in our study. There were 36 (94.7%) and 2(5.2%) non-neoplastic cases. Most common lung lesion was found to be squamous cell carcinoma(50.0%) followed by adenocarcinoma(31.5%). **Conclusion:** We conclude that CT guided Biopsy not only distinguishes between benign and malignant lesions but also helps in typing of lung cancer, so initiation of specific therapy like chemotherapy or surgery is possible without unnecessary delay.

KEYWORDS

Lung, Biopsy, Squamous Cell Carcinoma, Adenocarcinoma.

INTRODUCTION:

The Lungs are involved in various kinds of inflammatory, neoplastic and other lesions.¹The estimated number of newly diagnosed cases of lung cancer in the United States is 215,020,accounting for about 15% of cancer diagnosis.² Biopsy not only distinguishes between benign and malignant lesions but also helps in typing of lung lesions, so initiation of specific therapy like chemotherapy or surgery is possible without unnecessary delay.

MATERIALS AND METHODS:

A retrospective study was done in department of pathology of a tertiary care hospital for a period of one year. A total of thirty eight cases of lung lesions, attending the outpatient and inpatient wards of surgery department of a tertiary care hospital were included in the study. The cases were thoroughly interrogated, clinically examined and relevant investigations done. CT guided biopsy was done in all the cases. The cases were divided into following groups: Non neoplastic and neoplastic. Neoplastic cases were then divided into benign and malignant cases.

RESULTS AND OBSERVATIONS:

Maximum number of cases was observed in age group 41-50 years and there were 26(68.4%)male and 12(31.5%)female cases in our study as shown in Table 1.

TABLE – 1: AGE AND SEX DISTRIBUTION OF SUBJECTS

AGE	MALE	FEMALE
01-10 Years	00	00
11-20 Years	00	00
21-30 Years	00	00
31-40Years	02	01
41-50Years	11	06
51-60 Years	07	04
61-70 Years	05	01
71-80 Years	01	00
Total	26	12

TABLE-2: ANATOMICAL DISTRIBUTION OF THE LESION

SITE	No of cases
Right lung	20
Left lung	18
Total	38

Lesion were located in the right lobe 20(52.6%) and left lobe 18(47.3%) as shown in table 2.We widely divided cases into two groups: Neoplastic 36 cases (94.7%) and non-neoplastic 02(5.2%) cases. Non neoplastic cases comprises of non specific inflammation 01(2.63%) and granulomatous inflammation 01(2.63%) .Among the neoplastic cases, most common lesion was found to be squamous cell carcinoma(50.0%) followed by adenocarcinoma(31.5%),small cell

carcinoma(7.89%),large cell carcinoma(2.63%), metastatic carcinoma(2.63%).

TABLE – 3 HISTOPATHOLOGICAL DIAGNOSIS

LESIONS	NO OF CASES	PERCENTAGE
Non neoplastic		
Non specific inflammation	01	2.63
Granulomatous inflammation	01	2.63
Neoplastic		
Squamous cell carcinoma	19	50.0
Adenocarcinoma	12	31.5
Small cell carcinoma	03	7.89
Large cell carcinoma	01	2.63
Metastatic	01	2.63
Total	38	100%

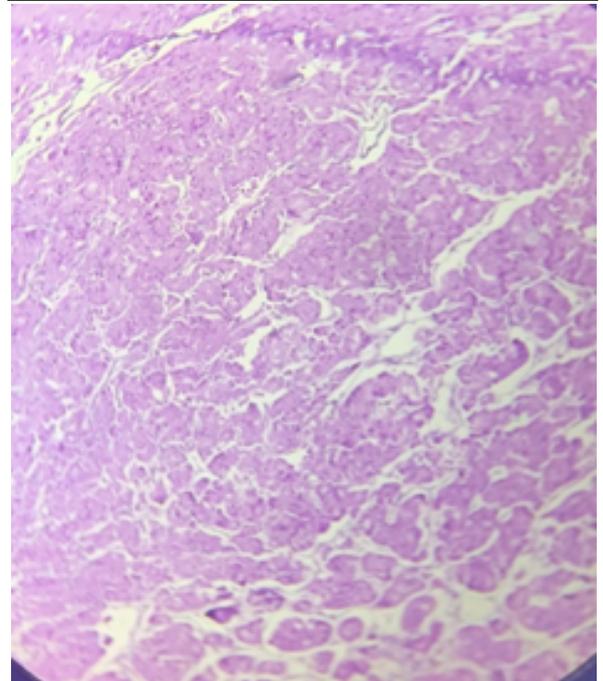


Fig 1:Squamous cell carcinoma.

DISCUSSION:

Lung cancer is the leading cause of cancer-related death worldwide and being increasingly detected in India due to increased awareness

about bronchogenic carcinoma and improved diagnostic techniques. Male patients (68.4%) showed significant preponderance in our study compared to females (31.6%) which was similar to the study done by Sumita Das et al where male patients were 80.84% while females were 19.16%.³ The male preponderance is due to greater incidence of lung disease in males because of smoking habits and occupational hazards. In this study lesions were located more on the right side than left which is similar to the study done by Saha et al.⁴ Of all the cases, Squamous cell carcinoma was found to be most common (46.6%) followed by adenocarcinoma (26.6%) which was similar to the study done by Saha et al⁴ and Basnet et al⁵ where squamous cell carcinoma was the most prevalent. This was in contrast to the study done by Madan et al where adenocarcinoma was most common.⁶

CONCLUSION:

We conclude that CT guided Biopsy not only distinguishes between benign and malignant lesions but also helps in typing of lung cancer, so initiation of specific therapy like chemotherapy or surgery is possible without unnecessary delay.

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