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LUNG CANCER: A PARADOXBUT REALIT

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ABSTRACT

This study explores the paradoxical relationship between smoking and lung cancer. It contains the sub topic lung tumour. The study sheds light on the need for targeted interventions and support within medical education to address this seemingly contradictory behaviour.

Keywords: Smoking, Passive And Heavy Smoker, Mutation, Small Cell, Industrial Hazard, Preinvasive Lessions, Physical Activity And Mental Health.

I. INTRODUCTION

Lung cancer is currently moat frequently diagnosed major cancer. In all new diagnosed cancers 12% is lung cancer and 21% cancer death. Worldwide most oftenly occur between age of 55- 84 years. Most common cause of cigarette smoking. Addressing this issue early on is crucial to support youngsters wellbeing and professional development.

The increasing use of tobacco substances which contain polycyclic hydrocarbon nitrosomines are major carcinogen. Polycyclic hydrocarbon binds to nuclear DNA an causes mutations. After mutation benzopyrine compounds take over they acts as tumor promoter. According to US news the highest tobacco smoking rate is in Nauru that is 42.1% and the second is Serbia 39%.And most importantly due to the legality of smoking this is most frequently used by youngsters now days and adults. In countries like INDIA, US, KYRGYSTAN, RUSSIA

Our educational department are spreading awareness regarding smoking and their consequences of smoking and also there is significant sign of nonsmoking traffics rules also but still no affect. There is linear co relation between the frequency of lung cancer and pack year of smoking.

Few questions.

1. What is pack year of smoking?
2. How air pollution add to risk in smokers?
3. How lung cancer occur in non smokers?
4. What is precursor and preinvasive lesions?
5. How industrial hazards,acquired mutation work for lung tumour?

Symptoms:

Coughing, Rusty sputum, chest pain with deep breathing, loss of appetite

Weight loss, sometimes coughing up blood.

II. RESEARCH METHODOLOGY

In the survey We conducted personally among the people of Kyrgyzstan of different ages and we found that highest rate of lung cancer in females is at the age 74-80 years and in males is 82-90 years

III. RESULTS AND DISCUSSION

Result of survey:

Among 500 hundred people that we surveyed maximum people that suffer from lung cancer are of 75-79 age group.

Minimum 25-40 age group is 4%. According to world cancer research institute the highest rate of lung cancer is in "Hungary" known via the survey of 2020.

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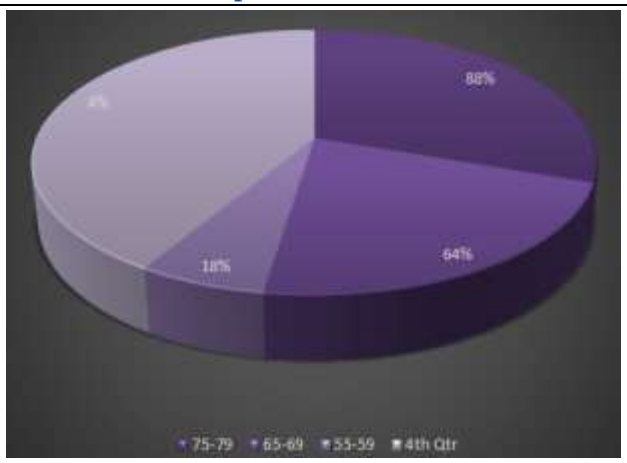
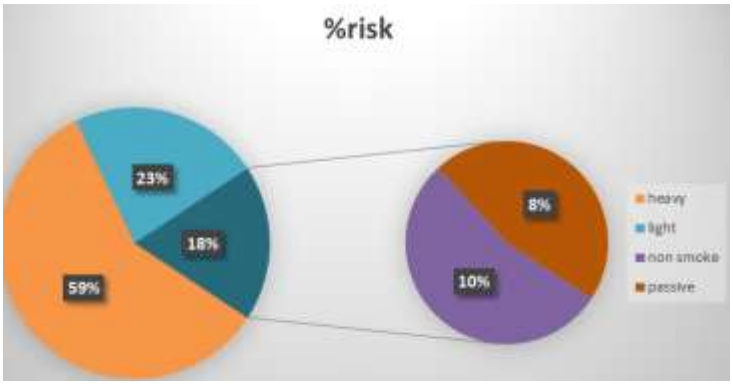


Causes of lung cancer

Tobacco	80-80%	75-79 age
Industrial hazards	5-20%	65age
Acquired mutations	15-20%	40 age

Relation between different type of smokers and lung cancer.

Type of smokers	Percentage of risk
Heavy smokers	80-95%
Light smokers	10-15%
Passive smokers	15-30%



Heavy smokers have 60 times higher risk of lung cancer than normal smokers. Not all smokers develop lung cancer (10-15%is the risk)Women are at the most suspect to tobacco than men. Cessation of smoking decrease the risk of lung cancer but not at a level of nonsmokers. Passive smokers are exposed to environmental tobacco smoke.it is known as second hand smoking.

Industrial hazards like asbestos, arsenic, chromium, uranium, nickle, vinyl chloride, high dose ionizing radiation. Air pollution adds to the risk of smokers, chronic exposure to air particle in smog irritates the lung that result in inflammation and repair and caused increased risk of lung cancer.

Nowadays, percentage of smokers is still increasing ,no doubt people are getting aware about the harmful effect of smoking and consequences but according to the survey we have done in public , smoking is like a routine of the everyday life style.

Overall prevalence

So the research shows the immensely increasing use of tobacco ,cigarette mostly by the youngsters to relieve their stress, daily life headache ,even the medical student who knows everything better about it consume these thing on large scale .

According to the WHO survey in 2023 HUNGARY has the highest smoking rate 31% and among men it is 35%

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and in women is 27%. In 2024 in us new 20 lakh cancer cases are arrived and 6 lakh deaths.

Causes

There are several factors that cause lung cancer directly or indirectly.

A. Tobacco smoking

- 80-90%cause
- Heavy smokers have 60 times higher rate than nonsmokers and nonsmokers ,light smokers have almost same rate of risk but passive smoking is more dangerous than light smokers. So, environment and surrounding also plays a very important role for good health.

B. Industrial hazards

- It is due to the exposure of substances like asbestos, arsenic, chromium , vinyl chloride these all are carcinoges
- High ionizing radiations chemical compounds like benzene and formaldyhyde
- Long time exposure to these substances shows tissue damage and inflammation and in severe cases scarring ultimately development of cancerous cells.

C. Acquired mutation

- Mutation lead to the accumulation of cancer ,mutational carcinoma is whether small cell or non-small cell
- Small cell are susceptible to radiation and highly aggressive, deletion of short arm of chromosome 3.
- Tp53,retinoblastoma tumor suppressor gene and are most common small cell mutation .

IV. RISKS FACTORS

A. Smoking

Cigarettes are the leading cause of it. It covers about 87% of all [center of disease control and prevention]

B. Second hand smoking -

C. Radon gas exposure

D. Occupational hazards

E. Family history- parents sibling or any close blood related relatives who had lung cancer increases the risk(American lung association)

F. Air pollution

G. Genetic factors

V. CONCLUSION

In conclusion we surveyed on 500 people of different ages about the smoking and lung cancer.it made clear that age group of 75-79 has the maximum risk of lung cancer approx. 80% and minimum in age group 25-40 that is 4%. According to WHO survey 2023 ,35% was the percentage of lung cancer among which 37% were man and 27% were women. In 2024 in US new 20 lakh cancer cases are recorded and 6 lakh deaths.

Air pollutions, industrial hazards, acquired mutations and tobacco smoking are most common causes. Despite daily life stress, competition and education pressure on students force them for smoking.

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