

LUNG CANCER STAGES FACT-A SURVEY

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ABSTRACT

The most important aspect of Lung cancer is staging. Diseases may differ. Most of the cancers are affected by every people today like blood cancer, breast cancer, stomach cancer, lung cancer...etc. In lung cancer is the most common deaths to occur for all human being. Men, women, kids, farmers, drivers. In this paper we discussed how the lungs are affected with different stages. The stages are categorized in various manners. There are some cancers spread outside and some spread inside. Some cancers are spread near by the nodule and centre part of the chest. In this staging performances can be analyzed and check the curing possibilities also using any classification techniques and prediction (1) methodology can be possible for any nodules and spreading cancer diseases.

KEY WORDS: cancer, stages, nodule, spread, chest, techniques

INTRODUCTION

Lung cancer is nothing but a uncontrolled growth of abnormal cells that starts off in one or both lungs in the cells that line the air passages based on its types like small cell lung cancer and non-small cell lung cancer. Lung cancer can be detected (2) any methods like image processing, image segmentation, image classification and image computation.

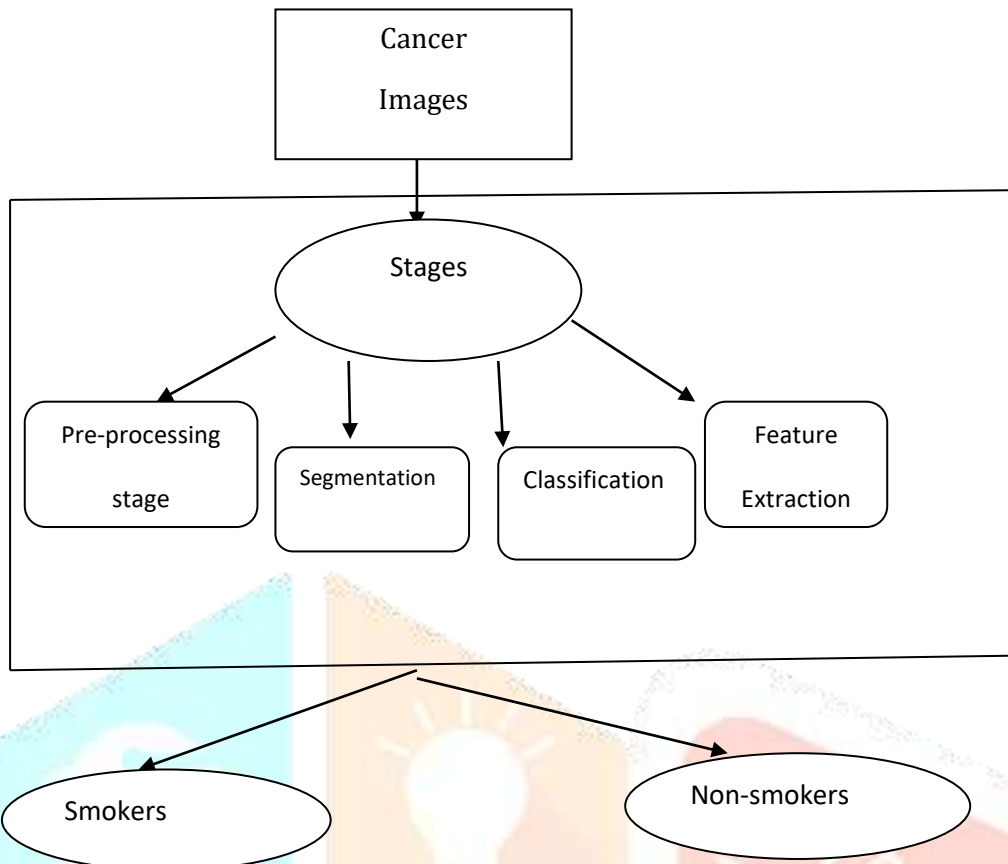
Cancer symptoms:

Coughing up blood, chest pain, deep breathing, weight loss, rust colored sputum, shortness of breath, feeling tired or weak....,

The staging cancers:

One of the many important aspects of lung cancer is staging. Staging is a way for Doctor's to determine the extent of the tumors growth and cells weak. Whether a small cell or Non-small cell in the Lungs. There are the three main factors when doctors look at a patient for lung cancer.

The first stage is tumor itself. It looks like low and big then measured it where it is located. It involves other structure in the chest. In the second factor are the lymph nodes. It is called mediastinal. The nodes are located in the centre part of the chest. Usually the Lung cancer spreads to the lymph nodes from either a left side or right side. We will accumulate in the nodes in the central part of the chest. Hence the nodes are great important in the staging process. The third aspects of staging are we call systemic disease or Metastasis. It means tumor is spreads outside of the chest. It has gone to other parts of the body like bones or brain..., They spreads depending upon the factors like age, gender, size, growth of cell, ...It can be measured by CT,(3)MRI,.. Scans and other latest technologies.



| <u>Stages</u> | <u>Description</u> |
|---------------|--|
| Stage1 | cancer is possibility to found in a lung. But not spread to outside |
| Stage2 | cancer is possibility to found in a lung Near by lymph nodes |
| Stage3 | cancer in the lung and middle of the chest |

Staging system:

| Type | Accuracy-Prediction | Age-Specificity | Sensitivity level |
|--------|---------------------|-----------------|-----------------------------|
| Male | 30 Percentage | >40 | Stage-1 (smokers) |
| Female | 35 Percentage | <40 | Stage-2(Non-smokers) |
| Kids | 1) ercentage | </>Than15 | Stage-1 and 2 (non-smokers) |

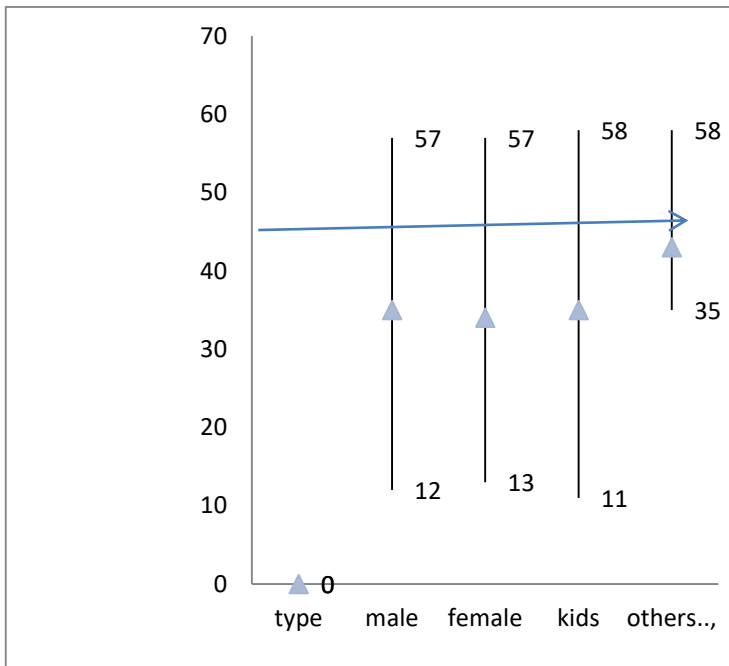
For example:

-TNM : TUMOR, NODE, AND METASTASES.

-FIGO: FEDERATION OF GYNECOLOGY AND OBSTETRICS

-CIN: CERVICAL INTRAEPITHELIAL NEOPLASIA

GRAPHICAL REPRESENTATION:



In the above graphical representation,

From 0-11----- stage level 1

From 0-13-----stage level 2

From 0-35 and abovr-----stage level 3

Death Vs Age factor:

| Type of Age factor | % of Death factor |
|--------------------|-------------------|
| 35-40 | 7.6% |
| 55-60 | 19.8% |
| 65-75 | 30.8% |
| 75-80 | 29.55% |
| >80 | 11.5% |

LITERATURE SURVEY:

| Authors | Techniques | Method | Algorithm |
|----------------|-------------------------|------------------------------|---------------------------------|
| Z.sun et,(al) | Image mining | Encoding speed computation | GA-genetic algorithm |
| Gholap et,(al) | Artificial Intelligence | Content based image mining | TMA-Tissue Microarray Analysis |
| Jiang and nago | Image segmentation | Common sub - graph | ARG-Attributed Relational Graph |
| Sharma et,(al) | Image processing | Segmentation and enhancement | Segmentation algorithm |

CONCLUSION:

Cancers are spread fastly and vastly today. If it is possible for curing any diseases, at the same time some diseases are not. Because of development and growth of technology, then most of the people may death especially some morphological (4) lung cancer for mentioned different stages. The availability of communication system rises of health care and research centers associated with processing of any data and curing possibilities to find the stage levels over the support of CT,MRI... and diagnosis the system using classification techniques.

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