

# Lung Cancer Predict- Risk Survivability for Radon Gas Among Non-Smokers Using Image Mining Techniques

**B. Mohamed Faize Basha, Dr. M. Mohamed Surputheen**

Assistant Professor, Department of Computer Science, Jamal Mohamed College, Trichy, Tamil Nadu, India

## ABSTRACT

Today the world has shrunk using various technology .But at the same time some diseases like cancer is very risk for non-smokers. We use some image data is the one of the essential features in the present scenario, since image mining data plays vital role of every aspect the system such as business for marketing, hospital, construction on particular data. Lung cancer is one of the leading cancer for men,women,kids developed including in India. Today the diseases are different. Some diseases causes very fast with our environment. We don't know the name of the diseases also. Here we were approaching most of the diseases are caused by gases. Especially Radon (Rn). It is actually natural gas and also chemically inert. The main factor of cancer diseases are caused by various types, like Bladder cancer, Lung cancer(1) Brain cancer,. Breast cancer, Cervical cancer, Ovarian cancer, Throat cancer, stomach cancer etc.,Most of the people were affected lung cancer whether smokers or non-smokers. That is why we proposed using image mining approaches and identifying how cure it .Image mining is the mixture of data mining and image processing. It is the knowledge based extraction of data. This research technique is used q-value method about the gas content and how it is affected non-smokers only. Because smokers are smokes, already gases. So we have a factors like to non-smokers such as building workers, office workers, kids, women.etc.,Here q-value is denoted quality and quantity approaches method are used three parameters such as blood,tissues,size.That is q-statistics value of Radon affected by non-smokers and possibilities of curing diseases.Lung cancer Seems to be the common cancer cause of death among people It focus on prediction and detection as early as in the mining data representation for curing possibilities among non-smokers.

**Keywords:** Shrunk, Image Mining, Cancer, Prediction.

## I. INTRODUCTION

Lung cancer is attributed to tobacco smoke, approximately 25% of lung cancers worldwide occur in lifelong never smokers. Over the past decades, the bulk of research on this disease suggested that several genetic, environmental, hormonal, and viral factors might increase the risk of lung cancer among never smokers.

### What is lung cancer?

Lung cancer is a cancer that starts in the lungs. To understand lung cancer, it helps to know about the normal structure and function of the lungs.

The lungs are two sponge-like organs found in your chest. Your right lung is divided into three sections,

called lobes. Your left lung has 2 lobes. The left lung is smaller because the heart takes up more room on that side of the body.

### Types of lung cancer:

There are two main types of lung cancer:

- ✓ Small cell lung cancer (SCLC)
- ✓ Non-small cell lung cancer (NSCLC)

Small cell lung cancer about 10% to 15% of all lung cancers are small cell lung cancer (SCLC), named for the size of the cancer cells when seen under a microscope.

### Risk Factor:

Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a

person's age or family history, can't be changed. But risk factors don't tell us everything. Having a risk factor, or even several risk factors, does not mean that you will get the disease. And some people who get the disease may not have had any known risk factors. Some risk factors like to develop lung cancer are- Radon gas, Asbestos, tobacco smoke, air pollution, diesel exhaust, inhaled chemicals like Ar,silica, Br,

#### **Most common symptoms of lung cancer are:**

- A cough that does not go away or gets worse
- Chest pain that is often worse with deep breathing, coughing, or laughing
- Hoarseness
- Weight loss and loss of appetite
- Coughing up blood or rust-colored sputum (spit or phlegm)
- Shortness of breath
- Feeling tired or weak
- Infections such as bronchitis and pneumonia that don't go away or keep coming back
- New onset of wheezing

If lung cancer spreads to distant organs, it may cause:

- Bone pain (like pain in the back or hips)
- Nervous system changes (such as headache, weakness or numbness of an arm or leg, dizziness, balance problems, or seizures), from cancer spread to the brain or spinal cord
- Yellowing of the skin and eyes (jaundice), from cancer spread to the liver
- Lumps near the surface of the body, due to cancer spreading to the skin or to lymph nodes (collections of immune system cells), such as those in the neck or above the collarbone

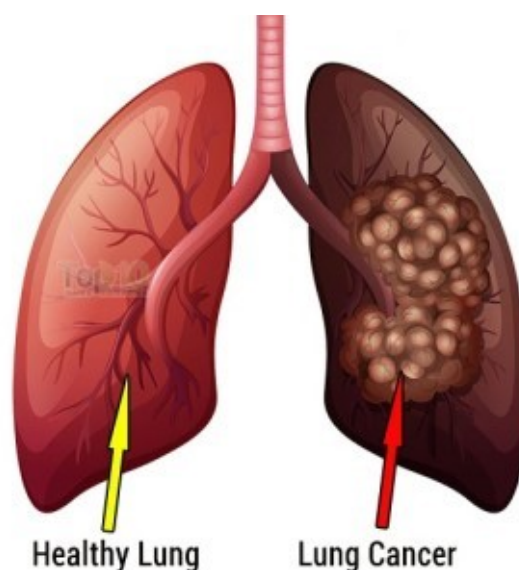
Most of the symptoms listed above are more likely to be caused by conditions other than lung cancer. Still, if you have any of these problems, it's important to see your doctor right away so the cause can be found and treated, if needed.

#### **Sample survivability:**

Statistics. Overall, 10 percent to 15 percent of lung cancers occur in non-smokers. Two-thirds of the non-smokers who get lung cancer are women, and 20 percent of lung cancers in women occur in individuals who have never smoked. This percentage is significantly higher in Asian women.

While cigarette smoking is an undisputed cause of lung cancer, not all cases of lung cancer occur in smokers or former smokers. Those who do smoke and are exposed to radon have an even greater risk of developing lung cancer than non-smokers who are exposed to radon gas. Being a non-smoker doesn't mean you cannot get lung cancer. While cigarette smoking is the No. 1 cause of lung cancer, you also can get it from breathing

secondhand smoke, being exposed to asbestos or radon, or having a family history of lung cancer.



## **II. CANCER BASICS**

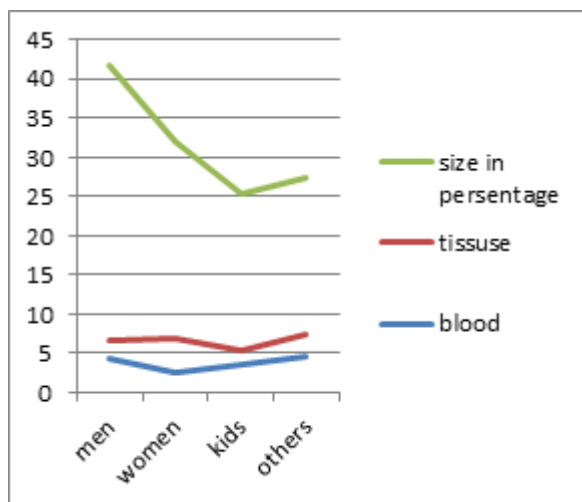
Start in this section to get answers to some of the basic questions about cancer, such as what it is, what some of the common signs and symptoms are, and how many people it affects.

#### **Few Symptoms of lung cancer:**

- ✓ A cough that does not go away or gets worse
- ✓ Chest pain that is often worse with deep breathing, coughing, or laughing
- ✓ Hoarseness
- ✓ Weight loss and loss of appetite
- ✓ Coughing up blood or rust-colored sputum (spit or phlegm)
- ✓ Shortness of breath
- ✓ Feeling tired or weak
- ✓ Infections such as bronchitis and pneumonia that don't go away or keep coming back
- ✓ New onset of wheezing

#### **q-statistics:**

We should take the three parameters are used in this study statically, ie., tissues, blood, size and focused on mainly two approaches like image quality and image accuracy. Whether we have at least any one of the approaches are used , we can find and possibilities of curing any cancer type of diseases with the help of image mining.



In image quality or accuracy the clear vision of nodules (the abnormal growth tissue) using any parameters. For example in blood like whether cell or non-cell, (6) find the group of blood and take caution immediately, then next size variation is depending upon the age factor for any human being.

### III. CONCLUSION

Lung cancer is one of the most dangerous diseases in the world. Correct Diagnosis and early detection of lung cancer can increase the survival rate. The present techniques include study of X-ray, CT scan, MRI, PET images. An image improvement technique is developing for earlier disease detection and treatment stages using image mining in different parameters such as blood, tissues and size variations. The time factor is taken in account to discover the abnormality issues in target image quality; we can find the cancer curing possibilities as early as soon. With the help of image mining we may analyze any type of cancer diseases in other parameters and get their image quality and clear vision, find easily.

### IV. REFERENCES

- [1]. Lung cancer detection system using Neural Networks and image processing by H.N.gunasinghe AS2010379csc IN usjp.
- [2]. Detection of Lung Cancer Stages on CT scan Images by Using Various Image Processing Techniques Mr.Vijay A.Gajdhane 1, Prof. Deshpande L.M. 2 1Dept. of Electronics and Telecommunication Engineering, TPCT's College of Engineering, Osmanabad, Maharashtra, OSR Journal of Computer Engineering (IOSR-JCE) e-

- ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 16, Issue 5, Ver. III (Sep-Oct. 2014), PP 28-35
- [3]. Non-Small Cell Lung Cancer, Available at: <http://www.katamacintyrefoundation.org/pdf/non-small-cell.pdf>, Adapted from National Cancer Institute (NCI) and Patients Living with Cancer (PLWC), 2007, (accessed July 2011).
  - [4]. Lung cancer in never smokers: Change of a mindset in the molecular era Young Joo Leea, Y.J. Lee et al. / Lung Cancer 72 (2011) 9-15
  - [5]. Parkin DM, Bray F, Ferlay J, Pisani P. Global cancer statistics, 2002. CA Cancer J Clin 2005;55:74-108
  - [6]. San Tam IY, Chung LP, Suen WS, Wang E, Wong MC, Ho KK, et al. Distinct epidermal growth factor receptor and KRAS mutation patterns in non-small cell lung cancer patients with different tobacco exposure and clinicopathologic features. Clin Cancer Res 2006;12:1647-53.