

StarSpecial

CANCER AWARENESS

Never-smokers still at risk

By SRIMAYEE SEN SARMA

LUNG cancer is a diagnosis that most people dread, and there is valid reason for this fear. According to World Health Organization (WHO), cancer accounted for 9.6 million deaths worldwide last year, 1.76 million of which were caused by lung cancer.

Datin Paduka Prof Dr Teo Soo Hwang, chief executive of Cancer Research Malaysia and cancer researcher/geneticist, says, "Eighty-six per cent to 92% of male lung cancer patients and 60% to 70% of female lung cancer patients are smokers, suggesting that smoking is still the most significant risk factor for lung cancer in Malaysia."

"Lung cancer is the second most common type of cancer among Malaysian men, fifth most common among Malaysian women, and third most common overall. One in 10 cancer patients is diagnosed with lung cancer, and smokers across all ethnicities, genders and age groups are more likely to get lung cancer."

While it is true that smoking is one of the biggest risk factors for lung cancer, non-smokers can be in danger, too.

According to a 2009 article titled *Lung cancer in never smokers: Clinical epidemiology and environmental risk factors* published in *Clinical Cancer Research*, never-smokers account for approximately 10% to 15% of lung cancer cases in the United States.

Even though there is no data-based evidence on the number of lung cancer cases in never-smokers in Malaysia, Dr Christina Ng Van Tze, consultant medical oncologist and the president and founder of Empowered – a non-governmental organisation that focuses on aiding the underprivileged section of the society in Malaysia with cancer treatment – says, "The number of non-smokers developing lung cancer is growing and becoming a concern. It is estimated that around 15% to 20% of men and about half the women diagnosed with lung cancer never smoked."

So then, what causes lung cancer in never-smokers?

Finding answers

When a non-smoker develops lung cancer,

it can be attributed to more than one factor, including environmental, occupational or genetic.

In an article published in *Science Blog of Cancer Research UK* titled *Science Surgery: Why do never-smokers get lung cancer?*, Dr Mariam Jamal-Hanjani, oncologist and clinical researcher specialising in lung cancer at University College London, mentions that non-smokers who develop lung cancer are more likely to have cells with a gene abnormality called EGFR.

"If you have never smoked, you are more likely to develop lung cancer that is driven by a fault in one or more genes. These are not necessarily genetic faults that you are born with, they may be faults that develop during the lifetime," wrote Dr Mariam.

Environmental and occupational factors, on the other hand, include exposure to radon, passive smoking, aerosolised oils caused by wok cooking, and asbestos exposure. The article also elaborated that there is a marked difference in the kind of lung cancer common in smokers and non-smokers.

According to Dr Ng, lung cancer can be generally divided into two groups – small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). NSCLC is further divided into three types – adenocarcinoma, squamous cell carcinoma and large cell carcinoma.

SCLC is the more aggressive kind of lung cancer and is thankfully less common and almost rare in non-smokers. Other less common types of lung cancer are lung carcinoid and pulmonary lymphoma. While smokers can develop all kinds of lung cancers, non-smokers are more prone to developing adenocarcinoma.

Till now, lung cancer in smokers and non-smokers have been treated in a similar manner. However, this may change with new research bringing to light more differences in the characteristics of lung cancer in smokers and non-smokers.

Lifestyle matters

Even though never-smokers can get lung

cancer, the good news is that such patients respond better to chemotherapy than smokers according to a 2006 study titled *Smoking affects treatment outcome in patients with advanced nonsmall cell lung cancer*, published in *Cancer*.

Dr Ng has a similar opinion, saying, "A healthy lifestyle before the diagnosis of lung cancer is one of the deciding factors of how well someone will respond to treatment."

She names a patient, Sim Siew Bee, as an example. Sim, who was diagnosed with stage four lung cancer that had metastasised to her throat and brain in May last year, responded so well to treatment that she is already in remission.

Dr Ng attributes Sim's fast recovery to her excellent health before her diagnosis. She says, "Sim led a healthy lifestyle. This helped her respond to the treatment better than people who have health issues prior to diagnosis."

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Surviving against adversity

Sim Siew Bee (pic) is a 55-year-old homemaker who assists her husband in his business. She was diagnosed with stage four lung cancer last year but is now in remission. As a lung cancer survivor, she attributes her win against the disease to her good health prior to getting diagnosed, as well as her positivity.

She narrates her journey from diagnosis to remission.

"I did not have typical symptoms of lung cancer such as coughing. For a couple of days before getting diagnosed, I just felt tired and short of breath while performing simple household tasks."

"When I went for a check-up, I was diagnosed with stage four lung cancer, which had metastasised to other parts of my body including my throat and brain."

"My first reaction was shock because I led a healthy lifestyle and still do. I exercise, eat home-cooked food, avoid fast food and have never smoked or

drank alcohol.

"However, I got past that initial shock and, instead of concentrating on the disease, I decided to focus on healing. I got all the support from my family and friends, which helped me stay positive in my fight against cancer."

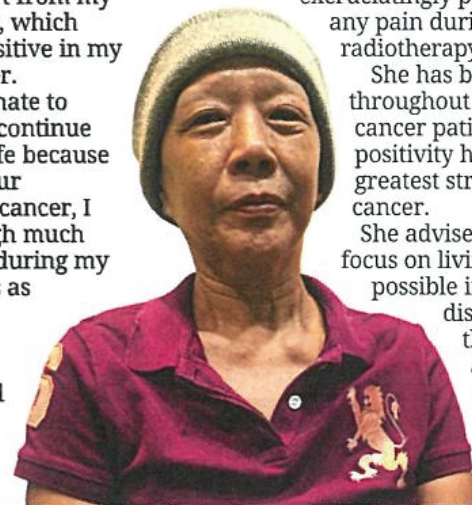
"I am also fortunate to have been able to continue with my normal life because even with stage four metastasised lung cancer, I never went through much pain. I was active during my treatment sessions as well."

"I had to go through both chemotherapy and radiotherapy sessions and still do, but the

frequency has reduced significantly now that I am in remission. I am mostly on drugs now. Many people often have the misconception that cancer treatments are excruciatingly painful, but I did not feel any pain during my chemotherapy or radiotherapy."

She has been extremely positive throughout her journey as a lung cancer patient and says that her positivity has been one of her greatest strengths against lung cancer.

She advises all cancer patients to focus on living as normal a life as possible instead of dwelling on the disease. She also advocates the importance of leading a healthy lifestyle since she believes that it was another reason she responded so well to treatment.



Harness the benefits of turmeric to fight disease

SPICES are old. They have been valued for their ability to bring other worlds and cultures to our tables and make food delicious, interesting and beautiful.

Besides that, every sprinkle of spice may add a little health bonus. Some spices have antioxidant and anti-inflammatory properties, especially turmeric, which has been used for thousands of years both as a spice and herbal medicine. Extensive research for the past 50 years on turmeric has shown that it can be beneficial for health.

Modern lifestyle habits such as the drastic increase in additives and preservatives in food, stress and lack of sleep or rest may be responsible for inflammation and disturbances in inflammation resolution in the body, suggests a 2012 study titled *Chronic inflammatory diseases are stimulated by current lifestyle: how diet, stress levels and medication prevent our body from recovering* published in *Nutrition & Metabolism*.

Inflammation resolution is the body's defence mechanism that helps protect the body from infection and injury. It can be



accompanied by symptoms such as pain, swelling or redness, which subside within a couple of days after the body recovers.

A compound in turmeric called curcumin is widely researched for its healing properties. A 2011 study titled *Turmeric (Curcuma longa) inhibits inflammatory*

nuclear factor (NF)- κ B and NF- κ B-regulated gene products and induces death receptors leading to suppressed proliferation, induced chemosensitization, and suppressed osteoclastogenesis published in *Molecular Nutrition & Food Research* indicates that turmeric inhibits certain inflammatory products and induces death receptors (a protein that may kill cancer cells when bound to another protein called TRAIL), leading to reduced cancer cell growth and higher chemosensitivity.

Many clinical (human) research studies use high daily doses of curcumin to test its effects on different ailments and bodily functions. This is because curcumin absorption by the body is poor, so much higher doses are necessary. With new technology and innovation, however, poor absorption of curcumin is in the past.

A curcumin formulation called Theracurmin, which is produced via ultrafine granulation and suspension technology, can be rapidly absorbed within one hour and retained for as long as 24 hours in the body.

A low dose (600mg) of Theracurmin can

Modern lifestyle habits such as the drastic increase in additives and preservatives in food, stress and lack of sleep or rest may be responsible for inflammation and disturbances in inflammation resolution in the body.

provide more curcumin than 100 teaspoons of turmeric powder. Theracurmin is a well-researched curcumin powder that may be beneficial for heart, brain, muscle and joint health.

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