

CANCER is a major disease that continues to plague many people to this day. However, despite the presence of awareness campaigns, such as the Pink Ribbon Movement that has significantly improved breast cancer awareness, there are still people who are left blindsided when they are diagnosed.

It is not uncommon to hear of people going for cancer screening only when the disease has already presented physical effects and has reached the later stages. In contrast, the public in many western countries is generally known to be quick on their feet when it comes to early cancer detection.

A long-held stigma

A large portion of the Malaysian population, primarily in rural areas, still does not fully understand what cancer is and its symptoms. Many patients often perceive cancer as a death sentence and this causes them to become desperate for help, which includes seeking unproven treatments.

While receiving a cancer diagnosis can be shocking, acting impulsively will be detrimental to one's chances of recovery in the long term. Maintaining levelheadedness and exploring treatment options offer the best hope for a smooth recovery from a cancer diagnosis.

Medical director and consultant clinical oncologist at Beacon Hospital Datuk Dr Mohamed Ibrahim Datuk Hj. Abdul Wahid urges patients to take the initiative in learning more about their situation, the medical treatments available and the possible effects of these treatments on the body. A popular form of cancer treatment that deserves attention is radiotherapy.

"People need to be more aware that there are many types of radiation treatment available to patients nowadays. Using a non-invasive procedure, the technology and techniques used can play a significant role in treatment outcomes. For this reason, it is important for the public to be aware of recent developments in radiation therapy", he stresses

A new form of cancer treatment

Initially used in the treatment of brain tumours, stereotactic body radiotherapy (SBRT) has since been adapted to treat other forms of cancer. This non-invasive



Datuk Dr Mohamed Ibrahim.

procedure makes use of highly precise radiation beams and real-time imaging to provide a safe and effective treatment.

A big contributor to SBRT's viability as an alternative treatment is the rapid evolution of medical technology and the introduction of CyberKnife, a system that leverages robotics and has since been replaced by TrueBeam 2.7 Radiotherapy to enable oncologists to deliver radiation beams on a concentrated area

Dr Ibrahim highlights, "Due to its precision, stereotactic radiosurgery technology allows us to target the tumour of interest while avoiding collateral damage to surrounding tissues.'

He raises the example of the difficulty in tracking liver tumours due to the natural up-and-down movement of the organ when the patient is breathing. However, he shares, "SBRT enables for live tracking of the tumour via the insertion of a fiducial marker or 'gold seeds' to identify the exact position of the tumour during treatment." Dr Ibrahim says the new technology



Taking time to carefully research treatment options gives you the best chances when combating cancer.

Development in radiotherapy for cancer treatment



According to Stereotactic ablative radiotherapy versus lobectomy for operable stage I non-small-cell lung cancer: a pooled analysis of two randomised trials published in *Lancet Oncology*, SBRT is shown to have significant survival rates as a surgical method for early-stage lung cancer. The local failure rate of SBRT in the prostate, liver and spinal cancer are also notably lower compared to its conventional counterpart.

In addition to higher success rates, SBRT is also remarkably convenient for patients undergoing cancer treatment. This can be attributed to the high degree of accuracy of SBRT technology, enabling quick yet concentrated doses of radiation that are capable of eliminating more cancer cells per session. As a result, the overall treatment time for cancer is reduced significantly from roughly eight weeks to as quick as five to 10 days.

A common concern among patients when it comes to radiotherapy is the debilitating side effects that come with it. These side effects include chronic fatigue, skin issues and hair loss. However, another advantage of highly precise beams is that it reduces radiation spillage to surrounding tissues and reduce toxicity.

This has two distinct benefits: it reduces the risk of unnecessary complications and lessens the potency of side effects usually associated with radiotherapy. Among the possible uses of SBRT is to treat prostate cancer. Instead of undergoing a surgical procedure, SBRT is a non-invasive procedure that does not require hospitalisation and is believed to present high cure rates similar to surgery. The side effects are minimal at most as patients may experience more frequent urges to pass urine for a few weeks and otherwise face

Types of radiotherapy

While many people are aware of the use of radiation therapy in cancer treatment, it is akin to a classification of various therapies instead of a singular one. These procedures can be broadly categorised into two main categories: external beam and internal radiation.

External beam radiation therapy is the more common of the two and uses specialised machinery to deliver radiation to a targeted area from the outside.

While it will not make direct contact with patients, it can be easily manoeuvred around to reach its target. Examples of external beam radiation therapy include:

little to no complications. While radiotherapy has traditionally been associated with causing severe side effects and morbidity, advancements in the field have made it less damaging to patients long-term while maintaining its effectiveness.

The future of radiotherapy

There is still room for improvement in real-time imaging technology. While effective for treatment, current imaging technology is still unable to fully delineate a targeted tumour completely due to spikes and roots around its edges.

However, Dr Ibrahim believes SBRT treatments have the potential to become the gold standard in the alternative treatment of various cancers due to the falling costs of the technology.

"I truly believe that SBRT treatments can be used as a substitute for surgical procedures in certain fields. Patients have to weigh the pros and cons of invasive surgical procedure over non-invasive radiotherapy treatments," he says.

"It is about time the public considers SBRT for treating conditions like prostate cancer, given that we are making huge advancements in the field. There have also been studies that show similar outcomes in both SBRT and surgery for early-stage lung cancer."

Through advancements in nuclear medicine, MRI imaging, and CT scans, oncologists would soon be able to outline and target cancer tumours in their entirety and improve outcomes overall.

It is a common preconception that all radiotherapy treatments are similar in quality, outcomes and side effects. However, radiotherapy technology is constantly evolving and improving.

"Even though technology plays an important role in determining treatment outcomes, not many people are aware of the latest developments in radiotherapy and where it has been implemented," says Dr Ibrahim.

To protect ourselves and our loved ones, it would be prudent to do our research and educate ourselves on these innovations and where these technologies are available.

■ For more information, call 03-7620 7979.

 Stereotactic body radiation therapy (SBRT)

Stereotactic radiosurgery (SRS) Intensity modulated-arc therapy

(IMAT) • Volumetric modulated-arc therapy (VMAT)

Internal radiation therapies place a source of radiation inside the body close to the cancer site. This source can come in a solid or liquid state and include items such as seeds, ribbons or capsules. Examples of internal radiation therapy include:

Brachytherapy

 Intraoperative radiation therapy (IORT)

The killer among skin cancers

SKIN cancers are generally classified as non-melanoma and melanoma skin malignancies. The most common ones are basal cell carcinoma (BCC) and squamous cell carcinoma (SCC), both of which are grouped into non-melanoma.

Though more commonly found among Caucasians, those who are fair-skinned and red-haired, skin cancer is increasingly affecting the Malaysian population.

According to the most recent Malaysian National Cancer Registry (2012-2016), skin cancer is one of the 10 most common cancers in both males and females.

The incidence of non-melanoma (NM) skin cancers from the 2012-2016 numbers translate into 3.5% or 1,797 males and 2.2% or 1,395 females, versus 184 males and 163 females with malignant melanoma (MM).

Though the number of patients with MM was low, over 70% of cases had been presented late for treatment; with a grim prognosis for 52%-58% of cases in Stage 4 of the disease. Despite the lower incidence of MM compared with BCC or SCC, MM presents higher mortality in those afflicted by skin cancer.

NM skin cancers (BCC or SCC) are less aggressive and are often presented in their early stages – more than 50% in Stage 1 and 18%-21% in Stage 2. A local five-year study found NMSC to be often presented in the eighth decade of life and more commonly among the Chinese, followed by Malays and Indians.⁽¹⁾

A slightly older study on 32 cases reported over 10 years found 62% presented at Stage 3 or 4 and a median age of 62 years.⁽²⁾ The higher prevalence among the Chinese comes as no surprise given the tendency of skin cancer among those with fairer skin.

In women, MM commonly occurs in the extremities, versus the trunk, head, or neck in men.

Risk factors

Besides skin fairness (the fairest is called Fitzpatrick type 1), other risk factors for developing MM include increasing age, a history of melanoma, a history of sunburn, and the presence of premalignant lesions such as atypical moles – which place about 7% of the general population in the risk group for developing MM.

Those with atypical mole syndrome, i.e. having more than 100 moles, are 12 times more likely to develop MM. In most cases, the melanoma usually appears as a new lesion rather than rising from pre-existing moles.

Patients with big hairy moles are at a higher risk of developing MM; as high as a 40% transformation rate has been reported. Sun or ultraviolet light exposure increases the likelihood of developing MM. The risk is higher in cases with a history of extensive exposure or sunburn during childhood.

How to distinguish a malignant lesion

MSU Medical Centre plastic and reconstructive surgeon Prof Dr Arman Zaharil Mat Saad says that most MM cases treated in Malaysia involve the peripheral or limb areas. They are found on the foot sole and are presented as late as Stage 3 or 4. The finding was mirrored in the 2012 study by Pailoor which cited 32 cases, with 16 affecting the lower limb and 12 on the soles.

What you should do

Suspicious of a lesion? See a doctor or specialist of skin cancers who could be a plastic surgeon, a dermatologist or an oncology surgeon for consultation and possible biopsy to obtain a definitive medical diagnosis.

Once a diagnosis is obtained, staging



Prof Dr Arman Zaharil Mat Saad.

investigation should follow a thorough clinical examination to check for enlarged satellite, in-transit, or regional lymph nodes. This is usually done via CT or PET scan, liver function test, and genetic study of gene mutations (BRAF and cKIT).

Treatment

Treatment at an early stage may involve surgical resection alone, which may offer a cure for the disease. A sentinel lymph node biopsy may be offered to patients with clinically negative lymph nodes to detect early cancer spread or micro-metastasis.

Those with palpable regional lymph nodes or lymph nodes detected on the imager or scanner should have a lymph node biopsy as well as a block dissection of the particular lymphatic basin.

As for adjuvant treatment, a new

"Other risk factors for developing MM include increasing age, a history of melanoma, a history of sunburn, and the presence of premalignant lesions such as atypical moles"

development in systemic therapy using immunotherapy (monoclonal antibodies) and targeted therapy (BRAF /KIT inhibitors) offers new hope for those with metastatic disease or in an advanced stage of melanoma (in which chemotherapeutic agents offer little assistance and radiotherapy may only benefit some patients); relieving symptoms in those with metastases to the brain, spine or bones.

References

⁽¹⁾ Han et al. Characteristics of skin cancers among adult patients in an urban Malaysian population. Australasian Journal of Dermatology. 2019.

⁽²⁾ Pailoor et al. Cutaneous malignant melanoma: clinical and histopathological review of cases in a Malaysian tertiary referral centre. Malays J Pathol. 2012 Dec;34(2):97-101.

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KKLIU 0250/2023 (Expiry date: 31st Dec 2025)

The perfect Valentine's Day gift

GIFT-GIVING has become part of human nature. We enjoy connecting, showing kindness and making our loved ones feel appreciated. Gifts have a way of conveying all these things.

Finding a meaningful gift, however, is never easy. It can be more daunting when the recipient is your significant other. If you are looking for the perfect Valentine's Day gift, it's hard to beat a massage chair.

While candy and flowers do not last, a massage chair will be there every day to offer some form of wellness and relaxation. When you give someone a massage chair, you are providing them with the stress relief of a professional massage right from the comfort of their own home.

The S6 Wellness SuperChAiR is the latest addition to Gintell's SuperChAiR Series. This feature-rich massage chair offers six unique humanised massage techniques and 20 builtin Wellness programmes, allowing you to immerse yourself in complete relaxation and relief.

The Gintell S6 is the very first massage chair in the market with AI Fatigue Bio-Scan technology. With just a quick scan of your index finger on the Gintell S6's "thumb panel", the built-in Bio-Senses system will be able to measure your heart rate, blood oxygen level and even assess your fatigue index. The data collected from these assessments will allow the AI system to customise a fully personalised massage programme that is best suited for your body.

The upgraded AiR-3D roller balls in the Gintell S6 can now protrude up to 13cm. This allows the roller heads to massage deeper into the muscles, giving this one-ofa-kind massage chair the ability to mimic more accurately the hand motion of a professional massage therapist and providing a significantly more rigorous massage experience.

The massage chair is equipped with 360°



Share a new relaxing experience this Valentine's Day with Gintell's latest massage chair.

Heat Spa Therapy, an innovative heat therapy feature that warms areas of your back, waist and calves through the chair's airbags. In addition, the chair includes cloak-like straps made of graphene which is an excellent heat conductor. This strap crosses over the abdomen to provide 360-degree full-body heat therapy, relieves overall muscle tension and relaxes

abdominal muscles to alleviate pain caused

by muscle spasms or menstrual cramps. Renowned tit-tar master (bone setting specialist) Datuk Seri Master Chris Leong fully endorses and consults on the Stretch 230° programme which is also included in the Gintell S6. This programme is similar to doing a light stretching exercise to loosen up joint stiffness and improve body alignment

The Gintell S6 offers six unique humanised massage techniques and 20 built-in Wellness programmes, allowing you to immerse yourself in complete relaxation and relief.

and flexibility.

Knee massage is now possible with the Gintell S6 Wellness SuperChAiR's brand-new enhanced heat and calf therapy. Knee Spa Therapy is highly recommended as it is extremely useful for the elderly and sportsmen because it increases joint flexibility and helps to create a greater range of motion. Heat therapy can improve blood flow, aid in releasing stiff muscles and joints, and ease pain and muscle spasms all around.

Valentine's Day is not just to celebrate lovers, but also for family and friends you care deeply for. For this Valentine's Day celebration, Gintell is offering the S6 Wellness SuperChAiR at only RM11,988 and discounts of up to 55% on selected products.

■ For more information, call 017-555 2086, visit www.gintell.com or visit your nearest Gintell showroom.

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CANCER is an umbrella term used to describe rapid and abnormal cell division with more than 200 cancer types and subtypes identified so far. However, the same few forms of cancer are usually the ones that make the headlines.

Defining which cancers are classified as rare remains hotly debated. However, many experts believe that to qualify as rare, cancer should have unusually low occurrence rates.

Breast cancer in men

Breast cancer is arguably the most wellknown cancer. In Malaysia alone, the disease makes up 25% of all cancer-related deaths in women. To many people, breast cancer is considered a female illness.

This notion is further reinforced by the colour pink and the word "breast" in awareness campaigns, both of which are

viewed as feminine.

However, contrary to popular belief, breast cancer is not limited to women. While women represent an overwhelmingly large demographic of breast cancel patients, men are not immune to the disease.

Globally, less than 1% of breast cancer patients are male. To put this rarity in perspective, one in every 1000 men is susceptible to the disease while the same risk is present in one in every eight women.

The main reason behind the lower incidence of breast cancer in men can be attributed to simple mathematical probability. Comparatively, men have less breast tissue than women and hence face a lower risk of developing cancer in that particular area. The treatment pathway for men is the same as for women.

BLOOD cancer compromises the functions of normal blood cells, including the ability to fight off infection, prevent excessive bleeding and transport oxygen throughout the body.

According to the *Malaysia National Cancer Registry Report 2012-2016*, released in 2020, leukaemia and lymphoma are among Malaysia's most prevalent forms of blood cancer.

Both forms of cancer are caused by an abnormal white blood cell count either in the bone marrow (leukaemia) or lymphatic system (lymphoma). Leukaemia also affects the body's ability to form blood clots.

The types of leukaemia are classified based on the type of blood cells involved and how quickly it develops. The four main

- types are: • acute lymphocytic leukaemia (ALL)
 - acute myelogenous leukaemia (AML)
- chronic lymphocytic leukaemia (CLL)

 chronic myelogenous leukaemia (CML) The main subtypes for lymphoma are Hodgkin's lymphoma and non-Hodgkin's lymphoma.

Being vigilant to save lives

Consultant haemotologist and transplant physician at Sunway Medical Centre, Sunway City Dr Ho Kim Wah highlights, "Normally, acute leukaemia patients present with anaemic symptoms like breathlessness, reduced effort tolerance, tiredness, giddiness and palpitation. Besides these, they may also present with easy, spontaneous bruising and bleeding tendencies, owing to low and dysfunctional platelet. They are also prone to infection, often present with recurrent fever, pneumonia, urinary tract infection, etc."

Patients with chronic leukaemia, however, are frequently asymptomatic at first and more often than not, the disease is only identified when an abnormal number of blood cells is found during routine health check-ups. Sometimes, owing to the indolent and slow growing process of chronic leukaemias, patients may have missed the early signs and symptoms of the

Educate yourself on blood cancer

disease, and only presented at a more

advanced stage. Dr Ho adds, "A blood test can sometimes reveal an abnormally high or low white blood cell count, very low platelet and haemoglobin."

In such instances, patients are required to undergo a diagnostic process that includes physical examination and investigation. Most of the time, a diagnosis is verified upon bone marrow aspiration, cytogenetic and molecular study. These tests also aid in the subsequent therapy management and wellness plan for the patients.

Checking for swollen lymph nodes, including in the neck, groin, underarm, and swollen spleen or liver, is an important step in diagnosing lymphoma. Further testing including blood tests, bone marrow biopsy, lymph node biopsy and imaging tests may be performed to ensure an accurate diagnosis.

However, according to Dr Ho, there are currently no standardised blood cancer screening methods available to the public.

Overcoming the odds

There is no one size fits all form of blood cancer treatment. Factors of consideration include the type and stage of blood cancer, the patient's general health, treatment

response rate and potential side effects. Chemotherapy, targeted therapy, bone marrow transplant, immunotherapy, and cellular therapy are common treatments available to a patient.

In modern treatment, Dr Ho explains, "Targeted therapy interferes with the specific proteins on leukaemic or lymphoma cells to



Dr Ho Kim Wah.

halt the cancer cells growth or cause cancer cells death (apoptosis). It works alone or concurrently with chemotherapy, which may result in a better outcome and response. Targeted immunotherapy is very useful not only in the initial therapy, but also when patients do not respond to chemotherapy."

New frontier of hope

A newer form of immunotherapy, called (CAR) T-cell therapy, is believed to be particularly effective for patients diagnosed with relapsed and refractory forms of blood cancer. However, at present, the access to (CAR) T-cell therapy is limited in Malaysia. Despite that, Dr Ho expresses optimism "Sometimes, owing to the indolent and slow growing process of chronic leukaemias, patients may have missed the early signs and symptoms of the disease, and only presented at a more advanced stage."

about the future access to treatment for blood cancers based on plans stated in the *National Strategic Plan for Cancer Control Programme 2021-2025*. The document outlined that (CAR) T-cell therapy will be fully established in the Ministry of Health (MOH) by 2025, enabling patients to receive the best possible treatment and care.

He urges the public to be diligent in the fight against blood cancer. "Go for annual checkups, be alert of the possible symptoms of blood cancer and seek the advice of a medical doctor."

■ For more information, call 03-7491 9191.



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- Urinary obstruction and urinary leaks
- Prostate artery embolization

🗸 Vascular (Vessel) Disease____

- Peripheral arterial disease (PAD)
- (peripheral vascular disease)
- Pulmonary arterio-venous malformations (AVMs)
 Renal artery stenosis / secondary hypertension
- Varicose and spider veins
- Vascular malformations
- Venous occlusive disease
 Venous thrombosis (acute and chronic)

Vomen's Health

Infertility (fallopian tube recanalization)
 Uterine fibroids

Liver Disease

- Biliary diseases, including biliary
- obstruction and leaks • Cancer secondaries (metastasis) in liver
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Taking the fight to lung cancer

GLOBALLY, lung cancer remains one of the most common and deadly cancers accounting for approximately two million new cases and 1.8 million deaths each year.

Contrary to popular belief, the disease is no longer confined to male smokers; with rising cases being detected in non-smokers and women. Tobacco smoking aside, second-hand smoke exposure and a family history of the disease are significant risk factors.

In Malaysia, lung cancer is the main cause of cancer-related deaths in men and second only to breast cancer in women. Unfortunately, almost 95% of cases are detected late at an advanced stage.

Screening with a low-dose computed tomography (LDCT) chest scan can be life-saving. The LDCT scan is quick, painless and requires no fasting or prior blood



Dr Anand Sachithanandan.

test. The benefits include detecting early-stage lung cancer before it has spread to the lymph nodes and outside the lung. High-risk individuals who may benefit include current or former



Dr Tho Lye Mun.

smokers (aged 45-75 years) who have been smoking at least a pack a day for 20 years and anyone with a family history of the disease. Surgery is the curative treatment of choice for early-stage



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lung cancer.

There has also been tremendous progress in the understanding of the molecular and genetic changes that lead to cancer growth. This has spurred a wave of new immunotherapy and targeted therapy treatments for lung cancer.

Moving forward in 2023, a greater use of precision diagnostics (next-generation sequencing or NGS) and even more sophisticated therapies are expected to be available. The best outcomes are often achieved when all the above therapies are combined in a coordinated manner through the cooperation of specialists such as oncologists, thoracic surgeons and chest physicians.

Lung Cancer Network Malaysia (LCNM) is a diseasecentric, not-for-profit NGO established in 2018 by Dr Anand Sachithanandan and Dr Tho Lye Mun to improve lung cancer outcomes through greater awareness, advocacy and education.

LCNM supports smoking control measures, screening for early disease including the innovative use of artificial intelligence (AI), the progress of modern cancer therapies such as immunotherapy, targeted therapy and precision radiotherapy and multidisciplinary cooperation.

Numerous useful resources are freely available on its website to help patients and their caregivers better navigate the cancer journey.

■ For more information, visit *www.lungcancer.net.my*.

Make it a point to get checked

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Cancer of unknown primary

Skin, breast, prostate and lung cancer all share the common ground of being named after their primary site (the organ or tissue where cancer first developed). The areas in which the cancerous cells may subsequently spread are known as secondary areas.

For instance, secondary breas: cancer in the lungs means it is breast cancer that has spread to the lungs. The cancer cells in the lungs are breast cancer cells and specialists will treat them as such.

In rare cases, the primary cancer site cannot be determined. The disease is then referred to as cancer of unknown primary. Despite its low rate, this type of cancer accounts for around 7% of overall cancer mortality, a considerable amount for rare cancer. Unfortunately, the complex nature of the disease means that the available treatments to properly treat or contain the disease are limited. The chosen treatments will vary on a caseby-case basis.

Nonetheless, the use of the word "rare" to define cancers may soon be obsolete as researchers adopt new technologies that allow the collection of genomic data.

Findings from newer methods are used for molecular profiling of cancers rather than the current system of profiling by anatomic origin. Molecular profiling discerns the different characteristics, risk factors and causes of each distinct cancer subtype to develop adequate treatments.

Above all else, what the public must take to heart is the need for regular cancer checkups and the effectiveness of early intervention. It is crucial not to delay getting a diagnosis from a trained medical professional and avoid non-medical treatments that claim to cure cancer.



With cancer affecting a large number of the global population, the public must get tested regularly for more favourable outcomes.