

Get your hoarse voice checked

By Dr HARDIP SINGH GENDEH

The increase in laryngeal cancer in Malaysia is mainly due to smoking.

LARYNGEAL cancer is a voice box cancer with 470 registered new cases contributing to 1.1% of all new cancers in Malaysia in 2016 (Globalan 2018).

It is categorised to cancers at the level of the vocal cords, above the vocal cords and just below the vocal cords. The earlier being the most common and the latter being the least common.

The functioning unit of the human voice box is the pair of V-shaped vocal cords. It closes to squeeze air, producing sound when we speak. It also opens wide allowing air to pass during breathing.

Therefore, the voice box is involved in breathing, speaking and has a protective role in preventing food and fluids from penetrating the windpipe on eating.

Penetration of food substance into the windpipe is termed aspiration and may lead to lung infections.

The ailment is more common in males compared to females.

Main predisposing factors to voice box cancers are cigarette smoking and alcohol consumption, the combination of both have a synergistic effect by increasing the risk of voice box cancer by almost fourfold.

Other contributing factors are inherited or genetic factors, exposure to metal fumes, increasing age, asbestos exposure, acid reflux and previous neck radiation.

However, it is still unknown whether electronic cigarettes (vapes) are more detrimental in the formation of laryngeal cancer than conventional cigarette smoking.

How do patients present?

Most patients will complain of a change in voice or simply having a hoarse voice, says Dr Marina Mat Baki, professor of laryngology at University Kebangsaan Malaysia Medical Center (UKMMC).

Some may experience foreign body sensation in the throat or painful and/or difficulty in swallowing.

She says that voice box cancers may spread to the neck resulting in a neck swelling. Larger cancer will narrow the airway leading to shortness of breath and noisy breathing.

Assoc Prof Dr Mawaddah Azman, an ear, nose and throat (ENT) surgeon in UKMMC adds that other diseases of the voice box may occasionally mimic laryngeal cancers.

Examples are precancerous lesions, which are altered cells with an ensuing potential to turn cancerous.

Vocal nodules, papilloma and granulomas are non-cancerous lesions which may cause similar symptoms. Tuberculosis (TB) and fungal infection (candidiasis) are cases in point.

How are patients investigated?

Although hoarseness can be caused by infections such as the common cold or voice abuse, suspicions of a voice box problem should arise if it is persistent over three weeks despite adequate treatment.

In such cases, the patient is best referred to an ENT specialist. A laryngoscopy which involves placing a camera through the nose or mouth to visualise the voice box under local anaesthesia, may be performed.

A sample taken via a biopsy in the clinic or the operation theatre under general anaesthesia is required for microscopic confirmation of diagnosis prior to starting treatment, adds Assoc Prof Mawaddah.

This allows the treating ENT surgeon to assess the extent of the disease, paying close attention to hidden areas of the voice box to ensure they are not missed.

Upon confirmation of diagnosis, patients may undergo an imaging study, often in the form of a Computed Tomography (CT) scan or Magnetic Resonance Imaging (MRI) scan.

The involvement of vital adjacent structures such as the swallowing pipe (oesophagus), thyroid gland and lymph nodes in the neck may give an indication of the stage of the disease, if it is advanced.

Treatment modalities

Yes, there is hope!



One of the predisposing factors to voice box cancer is cigarette smoking — Reuters

Although treatment of voice box cancer is complex, there are several options available depending on how advanced the disease is.

Treatment modalities have advanced from a surgical-only option several decades ago to an array of options managed by a multidisciplinary team of healthcare professionals.

This includes ENT surgeons, oncologist, radiologists, radiographers and swallowing therapists.

For early stage cancers, treatment options include radiotherapy or surgical excision of the tumour.

According to Prof Marina, surgical excision is often performed via the mouth using conventional instruments or carbon dioxide laser surgery.

"The advantage of laser surgery is that it can be performed multiple times as some cancers are more potent with a susceptibility to recur."

However, the patient's voice may remain hoarse and not return to normal as part of the involved vocal cords will need to be removed," she says.

UKMMC is the first among several public hospitals to provide laser surgery in Malaysia for voice box cancers.

Some centres may consider removing half of the voice box and leaving the remaining healthy half behind via an external neck incision. This is called a partial laryngectomy.

The main aim of treatment is to remove the disease adequately and retain some function of the voice box in patients with early stage cancers.

Advanced stage cancers

Surgery and radiotherapy with or without chemotherapy will be required.

"Surgery in an advanced stage disease often involves the total removal of the voice box termed total laryngectomy, and removal of the lymph nodes in the neck termed a neck dissection.

"This is performed to ensure the highest chances of cure rates and eliminate risks of cancer spread to the lymph nodes of the neck," says Prof Dr Razif Mohamad Yunus, consultant of head and neck surgery at UKMMC.

He adds that when there is skin involvement of the neck, considerations are made to reconstruct the defect by a donor skin, tissue or muscle from other parts of the body.

The biggest psychological setback among patients who have undergone a complete removal of their voice box is the inability to speak.

However, there are several options which can be adopted to act as an artificial voice box and produce sound.

They vary from esophageal speech where



Some patients may experience foreign body sensation in the throat or painful and/or difficulty in swallowing. — 123rf.com

air swallowed into the esophagus is burped out to produce speech, to electronic devices termed an electrolarynx and an array of voice prostheses.

The Malaysian Laryngectomee Association (<https://laryngectomeesdmsnixsife.com>) is a non-profit organisation and support group that meets monthly at UKMMC.

They comprise patients who have had their voice boxes removed and serves to create programmes and activities for character development and self-esteem among laryngectomee patients.

They also help in demonstrating the ability to communicate without their voice box and assisting for financial support for voice rehabilitation equipment.

What lies ahead

The advent of technology has further pushed the boundaries and opened doors for possibly varied treatment options.

According to Prof Razif, robotic surgery may have a role but is limited to early stage cancers. Its efficacy in treating voice box cancers is still being tested and studied.

Similarly, the role of chemotherapy and radiotherapy without surgery is now being considered for advanced voice box cancers which are small and does not significantly involve its surrounding structures, says Prof Marina.

However, such considerations are made on a case-to-case basis after thorough discussion with the radiologist and oncologist to

ensure the best treatment outcome.

Presentation and treatment options will vary from one patient to another. Like many things in medicine, early detection often offers better treatment outcomes.

If you are unsure of your symptoms, it is always advisable to consult your general practitioner whom may consider a referral to the ENT specialist, if needed.

The road to recovery does not only involve healthcare professionals but moral and emotional support from loved ones and family.

Reducing exposure to harmful substances such as tobacco and alcohol is the first step to prevention in voice box cancers.

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