



# BRAIN TUMOUR

THE SYMPTOMS, SIGNS AND OUTLOOK

Is that nagging headache something you should be worried about? **Dr. Azura Deniel**, an oncologist, explains when it's more than just a headache.

## WHAT IS BRAIN CANCER, AND WHAT ARE THE STATISTICS LIKE IN MALAYSIA?

Brain cancer is a growth of abnormal cells that are either within or around the structure of the brain. It can actually happen anywhere in the brain and it involves many types of cells in the brain.

According to the latest data on the Malaysian National Cancer Registry Report 2007-2011, there are a total of 2,236 registered brain cancer cases. Brain tumour is the 11th disease most common in males and 13th most common in females.

## WHAT ARE THE SIGNS AND SYMPTOMS?

Signs and symptoms depend on location of tumour, size, growth rate and age of patient. They include early morning headache, seizures, vision, hearing or speech problems, nausea and vomiting, loss of balance or problems with walking, change in personality or behaviour, and drowsiness. Sometimes signs and symptoms can be non-specific, for example loss of appetite, loss of weight, and inability to focus or falling grades in class. You may also observe changes in behaviour and personality, and weakness, like stroke.

## CONSULTANT'S PROFILE

Dr. Azura Deniel is an Oncologist based in KPJ Ampang Puteri Specialist Hospital. She obtained her MB BCh from the University of Wales, College of Medicine, UK in 1997 and her Specialist Degree in Oncology from the University of Malaya in 2007.

For more information or to seek consultation with Dr. Azura, call 03-4289 5000. You can also request an appointment at [www.kpjampang.com/appointment](http://www.kpjampang.com/appointment)

## HOW DOES BRAIN CANCER START?

It starts with an abnormal growth of cells that increases in size causing increased pressure in brain and interfering with brain function. Benign tumours grow slowly, do not invade and do not spread to other areas. However, even benign tumours can be deadly if they are located at areas that can interfere with vital function of the brain. Examples of benign tumours are meningioma, acoustic neuroma.

On the other hand, malignant tumours grow rapidly, invade surrounding structures, and can spread to other areas in the body. Most common malignant tumours are gliomas. Grade of tumour signify aggressiveness and prognosis.

## WHAT ARE THE CAUSES OF BRAIN TUMOUR?

Most brain tumours occur spontaneously. Risk factors are previous exposure to radiation and genetic inheritance or syndromes eg neurofibromatosis. Any persistent or worsening symptoms listed above should raise alarm to seek medical attention.

## LET'S TALK ABOUT HEADACHES IN PARTICULAR AS A SYMPTOM FOR BRAIN TUMOUR. WHEN DO YOU KNOW A HEADACHE IS MORE THAN JUST SOMETHING YOU SLEEP OFF OR EAT A PAINKILLER FOR?

Headaches are one of the most common symptoms for brain tumour affecting about 50 per cent of brain tumour patients. Common features of tumour headache include it feeling worse upon waking up in the morning and gets better only after a few hours, persistent, may or may not be throbbing, may be associated with vomiting, may worsen with coughing, exercise, change in body

position, does not get better with usual pain killers and is associated with other problems like blur vision or weakness.

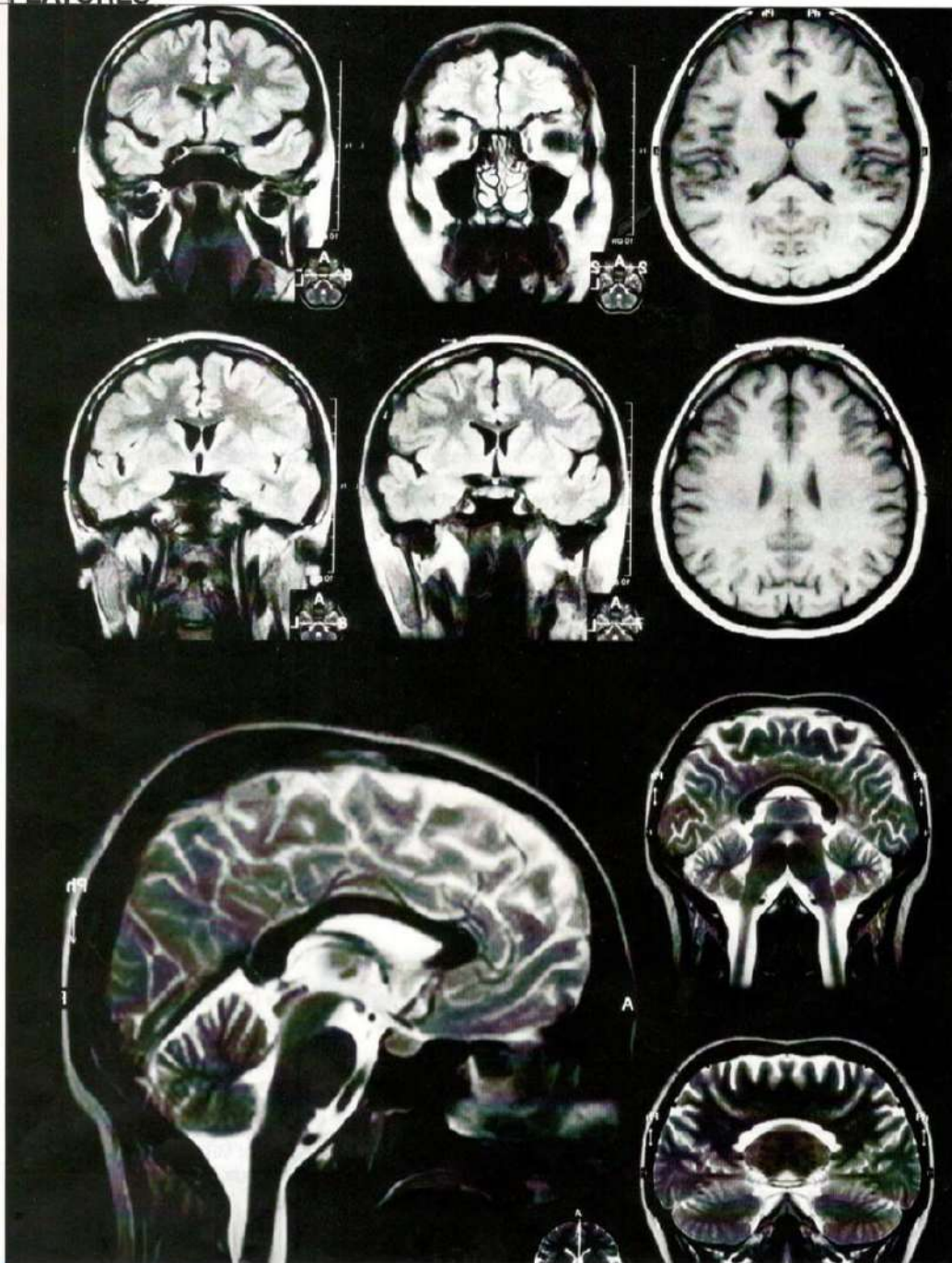
## ARE THERE ANY OTHER MEDICAL PROBLEMS WITH BRAIN TUMOURS?

Brain tumours can cause pituitary dysfunction and hormonal imbalance. This can lead to many types of medical problems.

## ARE THERE ANY SPECIFIC SCREENINGS FOR BRAIN CANCER?

In fact, there is no specific screening test for brain cancer. These are the steps to diagnose brain cancer – when you see the doctor, he or she will do a physical examination and then a visual examination to see whether the patient has any abnormalities that you can see behind the eyes. And also a neurological examination, we try to find whether there's any abnormal posture, gait, weakness or reflexes. I think that is the first sign that something is abnormal. And usually, we will go on and do further tests so maybe a blood test that includes tumour markers as some tumours actually excrete tumour markers. If this is raised then it will tell us that something is not right. Then we go on to the next investigation, which is usually a CT scan or MRI.

The CT scan is usually the basic imaging that we use for the brain, so we can actually do it with contrast or without contrast. From there, usually we will go on to do an MRI to see the soft tissue better. There are special MRIs where you can do readings, such as spectroscopy.



And then, usually you'll need a biopsy. There are many ways of doing a biopsy, which is usually done by the neurosurgeon. It is more advanced now known as stereotactic biopsy, where we use a very small needle to go to a specific location. Sometimes, surgery is needed, like an open biopsy to remove the tumour.

**CAN YOU SHARE THE TREATMENT FOR BRAIN CANCER DONE AT KPJ HOSPITALS?**

Treatment for brain cancer usually requires a multimodality approach – surgery, radiotherapy and chemotherapy. Surgery by a neurosurgeon removes the disease and reduces pressure in the brain. This allows a detailed analysis to be done on the tumour cells. For large tumours, maximal safe debulking will be done to preserve function.

Radiotherapy is cancer treatment using high energy x-rays to kill cancer cells. New technology in radiotherapy techniques allows better target delineation and sparing of normal tissues in the brain allowing higher dose to be delivered resulting in better outcome and less side effects. Radiotherapy is usually given daily over a period of time up to six weeks. Stereotactic radiotherapy allows high precision and even higher dose to be delivered to tumour for curative intent.

Chemotherapy is the use of drugs to kill cancer cells. New chemotherapy and targeted therapy drugs including oral tablets have resulted in improved outcomes and better tolerability of treatment. Chemotherapy can be given concurrently with radiotherapy, before or after.

**ANY POSSIBLE SIDE EFFECTS OF THE TREATMENT?**

Side effects depend on the area treated. Radiotherapy can cause hair loss, visual disturbance, brain dysfunction but the risks are minimised with improved technology.

**WHAT ARE THE NEXT STEPS AFTER TREATMENT?**

Patients will undergo regular follow-up for five years after completing therapy and interval scans to assess their progress. Blood test, hormonal levels and visual assessments will be arranged.

**WHAT ABOUT STEROID THERAPY? DOES THAT APPLY IN MALAYSIA?**

Steroids are usually quite commonly used for brain tumours, mainly to reduce the swelling. The swelling – known as edema – around the tumour may be bigger and is what's causing the symptoms. So when you give steroids, it actually reduces the edema but not so much the tumour. Except for maybe lymphoma as it may respond to some steroids.

**WHAT IS THE OUTLOOK FOR BRAIN CANCER?**

Overall, the outcome of treatment has improved over time and should improve further in future. For example, survival rates for medulloblastoma in children have improved significantly, and survival for glioblastoma multiforme – despite being very aggressive – have improved as well.

**LET'S SET THE RECORD STRAIGHT ONCE AND FOR ALL: MOBILE PHONES – DO THEY CAUSE BRAIN CANCER?**

It's a myth. There's no evidence to say that it increases the risk of brain cancer. ☹



**Advances in treatment modalities have improved prognosis of brain cancers.**