Brain tumours in young children

Brain tumours are the second most common type of cancers in young children, accounting for 30 to 40 new case in Hong Kong each year. They can develop in different parts of the brain and can directly destroy adjacent brain cells or damage other brain cells by exerting pressure on them within the skull.

Astrocytomas, medulloblastomas and germ cell tumours are the most common brain tumours occurring in young children. Both medulloblastomas and germ cell tumours tend to obstruct the circulation of cerebrospinal fluid. This causes blockage followed by pressure building up in the skull causing headache and vomiting. Symptoms may be non-specific at first, but they become more identifiable with time. Some symptoms can be quite inconsistent, depending on where the tumour is located. CT scan and MRI can help diagnose brain tumours. These are devices for getting pictures of different parts of the body without using x-rays. Early detection increases the chance of survival which is about 70 per cent nowadays.

Most malignant tumours cannot be dealt with by surgery alone. Additional therapies such as cranial irradiation and chemotherapy are required. In general, there are limitations to using gamma knives to deal with malignant brain tumours because of the tool’s inability to kill microscopic cancer cells extending from the main tumour body.

Long-term side effects are serious concerns for brain tumour patients. The side effects may be induced either by the tumour itself or by the various treatment modalities. Some children suffer a slight drop in IQ, memory loss or learning capacity after treatment. Monitoring their condition regularly is therefore essential for spotting these developments and treating them at an early stage.