SAMANTHA DICKSON
BRAIN TUMOUR TRUST

BRAIN TUMOURS - THE BACKGROUND

What is a brain tumour?

A tumour is an abnormal growth caused by cells reproducing themselves in an uncontrolled manner. There are many different types of brain tumour and they are usually named after the type of cell they started from.

How many people are diagnosed in the UK with a brain tumour each year?

6,500 people are diagnosed each year with a primary brain tumour.

What are the survival rates like for brain tumours?

3,400 people lose their lives to a brain tumour each year. The number of people dying from brain tumours is higher than ever before with deaths rising at approximately 2% per year.

Despite being the biggest childhood cancer killer and causing more deaths among the under 40s than any other cancer statistics show that brain cancer has received a fraction of the funding of higher profile cancers. Statistics also show that high profile cancers have received up to 20 times the investment of brain cancer and have seen survival rates almost double in 30 years.

Often dubbed the 'forgotten cancer', the UK's brain cancer survival rates have barely changed in 30 years with understanding and treatment of the disease falling way short of standards across the rest of Europe and North America.

Research, funded by the charity, indicates that the medical profession in the UK takes around three times longer to diagnose a paediatric brain tumour than countries such as Poland, Mexico and the US.

The average years of life lost (calculated from the shortening of life attributable to brain cancer, compared to life expectancy) to brain tumours is the highest of any cancer at over 20 years and is the biggest killer of the under 40's.

What causes brain tumours?

The causes of brain tumours are still not understood so there is no way to predict who will get a brain tumour. The statistics show that it affects more men than women, but it can affect anyone at any age.

Are there different grades of tumour?

Yes, brain tumours are put into groups according to how fast they are likely to grow. They are usually graded from one to four. Tumour grades indicate the degree of malignancy and are based on their tendency to spread and the similarity to normal cells. Grade one and two are classified as low grade (benign or mildly malignant), and three and four as high grade, although there are some areas between two and three which can be difficult to distinguish. Some tumours contain several grades of cells, and the grade is determined by the most malignant grade of cell within the tumour, even if most of the tumour is lower grade.

Are there different types of tumour?

Yes, gliomas arise from the supportive tissue of the brain (glial cells) and account for more than half of all primary brain tumours. Tumours may be named after the type of cell they are composed of or after the part of the brain where they are found. Medulloblastoma is one of the most common types of malignant tumour found in children. Other types of tumour include meningioma, acoustic neuroma, pituitary and spinal tumours.

What are the symptoms of a brain tumour?

Brain tumours are often difficult to diagnose because their symptoms can be varied, although in many cases people have headaches or nausea. These symptoms are often caused by a rise in the pressure in the brain as the tumour grows. Raised intracranial pressure can also affect sight, balance or give rise to mental confusion. Another common symptom of the presence of a brain tumour is epilepsy, which can cause muscle spasms, fits or moments of unconsciousness.

The key symptoms for children include impaired movement, nausea and/or vomiting, seizures, visual disturbance, epileptic fits or seizures and altered consciousness. Children under three years may also experience an increase in the size of their head, weight loss and lethargy. Children over three years may show different symptoms including headaches, abnormal drinking patterns and disturbance of normal growth.

How are brain tumours treated?

Treatment of a brain tumour is different from treatment of tumours in other parts of the body. Brain surgery needs to be extremely precise and not all therapeutic drugs are able to cross the blood brain barrier. The type, grade and location of the tumour will help determine the treatment for a brain tumour.

Surgery, radiotherapy or chemotherapy may be used alone or in combination to treat brain tumours. Surgery can range from a biopsy (taking a sample of the tumour for analysis) to a major operation in which the tumour is completely or partially removed. Radiotherapy is usually given after surgery if a tumour has not been completely removed or if there is the possibility that abnormal cells remain. When surgery is not possible or necessary, radiotherapy with or without chemotherapy is the main treatment. Chemotherapy can be effective for inoperable primary brain tumours or as part of the treatment for secondary brain tumours. Steroids may also be used to control the swelling due to accumulation of fluids often associated with brain tumours.