Overview:

Tumour Group:
Gliomas and Pediatric Brain Tumours

WHO Grade:
Diffuse intrinsic brainstem gliomas are generally high-grade tumours; focal brainstem gliomas are low-grade tumours.

Prevalence/Incidence:
15 to 20% of all pediatric brain tumours are brainstem gliomas.

Typical Age Range:
Occur most often in children between three and ten years of age, but can occur in adults. Around 75% of brainstem gliomas are diagnosed in children and young adults under the age of 20, but they have been known to affect older adults as well.

Description of Tumour:
Brainstem gliomas start in the brain or spinal cord tissue and are very unlikely to spread throughout the nervous system. The tumour type is named for its location at the base of the brain. Diffuse intrinsic brainstem gliomas infiltrate through the entire substance of the brainstem.

Focal low-grade tumours tend to grow out from the brainstem in one area. Low-grade brainstem tumours may be associated with neurofibromatosis (NF 1 or Von Recklinhausen’s disease).
**Symptoms:**
Common symptoms include:
- Difficulty swallowing
- Double vision
- Facial weakness
- Headaches
- Nausea
- Speech or balance abnormalities
- Weakness or numbness of the arms and/or legs

**Treatment/Standard of Care:**
Surgery may not be an option, especially with a diffuse intrinsic brainstem glioma, because the brainstem controls vital life functions and can easily be damaged. More often, these tumours are treated with radiation therapy and sometimes chemotherapy.

Radiation therapy can reduce symptoms and help slow the tumour’s growth. Low-grade brainstem gliomas can sometimes be responsive to surgery and can have very long periods of remission.

**Prognosis:**
Diffuse intrinsic brainstem glioma is an aggressive cancer. Without treatment, the life expectancy is typically short from the time of diagnosis. With appropriate treatment, prolonged survival may be observed, however, however, the minority of patients are alive at three years.

For more details, please refer to braintumour.ca