Overview:

Tumour Group:
Non-Malignant Brain Tumour

WHO Grade:
Grade I

Prevalence/Incidence:
Vestibular schwannomas represent 8% of intracranial tumours.

Typical Age Range:
All ages are affected but pediatric cases are rare.

Description of Tumour:
A vestibular schwannoma is also known as an acoustic neuroma, schwannoma, or neurilemmoma. A vestibular schwannoma affects the nerves responsible for hearing and balance.

This type of non-malignant brain tumours grow from the sheath surrounding the eighth cranial nerve and as a result can cause such symptoms as hearing loss, balance difficulty and tinnitus. The size of the tumour when first diagnosed is variable and in some cases can be quite large.

Symptoms:
Common symptoms include, but are not necessarily limited to:
- Dizziness or vertigo
- Hearing loss in one ear
- Lack of coordination
- Tingling or numbness in the face
- Tinnitus (ringing in the ear)
- Walking and balance problems
- Double vision
- Trouble with speech or swallowing

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Additional support, information and education offered by Brain Tumour Foundation of Canada:

- Adult, Pediatric and Non-Malignant Brain Tumour Handbooks available in English and French.
- "A Friend in Hope" children's storybook available in English and French.
- 20+ Adult Support Groups across Canada (in-person and virtual)
- Toll-free information and support line
- BrainWAVE Pediatric Support Program
- Print BrainStorm Newsletter
- Email Newsletters: 
  - E-BrainStorm
  - Peace of Mind
- "Grey Matters" Blog

Because many of the symptoms are also indicative of other, less serious ailments, vestibular schwannomas are often misdiagnosed or remain undetected.

**Treatment/Standard of Care:**
There are three treatment options available:

- Observation (monitoring)
- Microsurgical removal (partial or total)
- Stereotactic radiosurgery (single fraction) or radiotherapy (multiple daily fractions delivered using stereotatic techniques)

Some of the factors that influence the optimal treatment strategy include the age of the patient, the size of the tumour, whether the tumour is growing, whether symptoms are present (e.g. imbalance or tinnitus), the patient's personal preferences. It is important the patient is fully counselled with regards to the risks and benefits of each option.

Vestibular schwannomas can be difficult tumours to remove surgically. Patients with vestibular schwannomas should be referred to neurosurgeons with particular expertise in surgery for this tumour type.

**Prognosis:**
The outcome relevant to vestibular schwannoma management include facial function, hearing (if present prior to treatment), extent of resection of the tumour if operated, or lack of growth for irradiated tumours, quality of life, and other symptoms such as headaches, dizziness, and facial numbness.

Grade I brain tumours tend to have the most favourable survival rates compared to higher grade brain tumours. Although non-malignant, if untreated, vestibular schwannoma can in rare situations be life-threatening, particularly if the tumour is very large. This makes it imperative that individuals with persistent inner-ear problems be evaluated to eliminate the possibility of vestibular schwannoma.

For more details, please refer to braintumour.ca.