

# Schwannoma in the Neck Region: A Rare Entity

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## ABSTRACT

Schwannoma is a benign nerve sheath tumor composed of Schwann cells. Schwannoma, which originates from the cervical vagus nerve, is an extremely rare neoplasm. It mostly presents as a painless, slow growing lateral mass. Complete surgical resection is the recommended treatment of choice. Male-to-female ratio is 1:1. Fine needle aspiration cytology and imaging modalities have decreased the problem of misdiagnosis.

**Keywords:** Schwannoma, cervical vagus nerve, complete surgical resection

Schwannoma is a benign nerve sheath tumor composed of Schwann cells. Schwannomas are also known as neurilemmomas, neuromas or paragangliomas. Schwannoma was first established as a pathological entity by Verocay in 1908 who later called it 'neurinoma' in 1910. Stout, in 1935, termed it as 'neurilemmoma'. Most cases of schwannoma are asymptomatic and present as a neck mass. Male-to-female ratio is 1:1. Age of predilection is 30-60 years. Here, we present a case of a 60-year-old woman who presented with a swelling in the right side of the neck.

## CASE REPORT

A 60-year-old woman presented to the OPD with a swelling in the right side of the neck on 4/1/17. On advising her an excision of the growth, she was lost to follow-up. Again, on 25/1/18, she presented to the OPD, ready for surgery. Figure 1 shows the swelling on the right side of the neck. On getting her investigated and working her up for surgery, the investigation results were as follows: Hemoglobin (Hb) - 11.2 g/dL, total leukocyte count (TC) - 5,300 cells/mm<sup>3</sup>, differential

count (DC) - N<sub>64</sub>L<sub>27</sub>E<sub>5</sub>B<sub>4</sub>, urea - 28.4 mg/dL, creatinine - 1.05 mg/dL, RBS - 101.7, Integrated Counselling and Testing Centre (ICTC) - negative, electrocardiography (ECG) - normal, fine needle aspiration cytology (FNAC) - scanty hemorrhagic material present with significant cells.

Excision biopsy was advised. Surgical excision of the growth was planned (Fig. 2); surgery was done under sedation on 29/1/18 (Figs. 3 and 4). Parts were



Figure 1. Swelling on right side of the neck (pre-op).



Figure 2. Swelling being palpated on table.

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Figure 3. Incision made on the swelling.



Figure 4. Incision deepened till the growth.

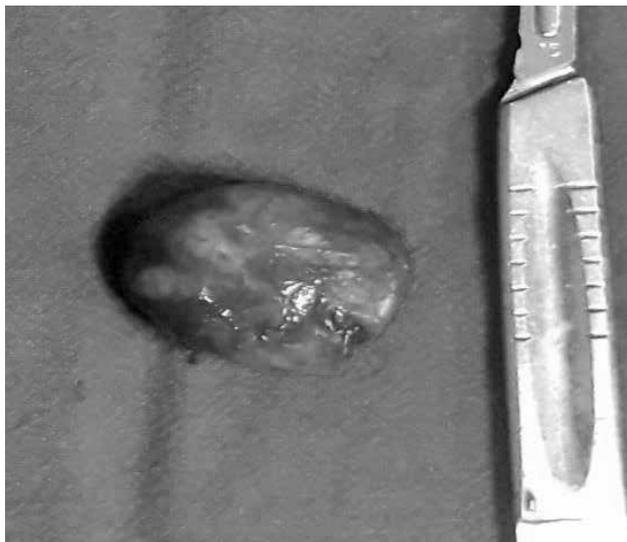


Figure 5. Growth excised *in toto*.

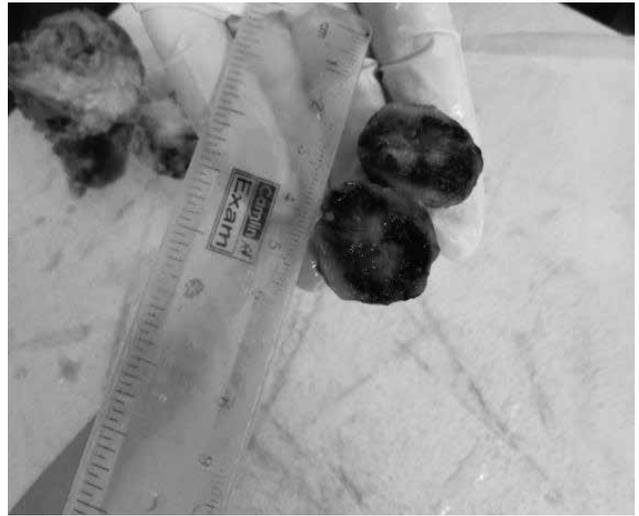


Figure 6. Growth sent for histopathological examination.



Figure 7. Microscopic picture of the growth.



Figure 8. Follow-up after suture removal.

cleaned and draped, local infiltration given. Growth was excised and sent for histopathological examination (HPE) (Figs. 5 and 6). Patient was discharged on 31/1/18.

HPE report revealed a nodular mass of 2 × 1 and 5 × 1 cm; cut section grey white, grey brown areas. Microscopic findings revealed capsulated spindle cell with myxoid areas with collagen and few lymphocytes, congested blood vessels with prevascular hyalinization (Fig. 7). Histological diagnosis was spindle cell neoplasm - schwannoma.

### Follow-up

Patient was told to follow-up after 10 days for suture removal (Fig. 8).

### DISCUSSION

A schwannoma may arise from any peripheral, cranial or autonomic nerve except olfactory and optic nerves. Among cranial nerves, they arise from glossopharyngeal, accessory, hypoglossal and vestibulocochlear nerves. Paragangliomas, branchial cyst, malignant neck tumors and cervical lymphadenopathies could be the differential diagnosis. Surgical resection of the tumor is the treatment of choice.

Approximately 25-45% of extracranial schwannomas are present in the head and neck area. Involvement of the vagus nerve is reported in 10%. Diagnostic techniques in the form of FNAC and imaging modalities have reduced the problem of misdiagnosis.

On microscopic examination, the tumor exhibits two main type of cells, namely Antoni A and B. Antoni A are composed of compact spindle cells and B are composed

of region of loose Schwann cells. There is no clear evidence of malignant potential and risk of recurrence after removal.

### SUGGESTED READING

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