A Giant Nasal Septal Schwannoma - A Case Report

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INTRODUCTION

Schwannomas are uncommon and benign neoplasm which originates from any peripheral, cranial or autonomic nerves which contain Schwann cells.1 These neoplasms are extremely rare in the nasal cavity. These tumours include schwannoma (neurilemmoma or neurinomas), neurofibromas and traumatic neuroma. Schwannoma is a neurogenic neoplasm arising from the sheath of myelinated nerve fibres. Majority of the head and neck schwannomas present as slowly enlarging, solitary, non-tender and encapsulated mass. Schwannomas are benign and encapsulated tumour which arises from the spinal roots, cervical nerves, sympathetic nerves, vagus, peroneal and ulnar nerves. Approximately 4% of the cases of schwannoma are found in the nasal cavity and paranasal sinuses.2 The nasal septum is considered the rarest site for the origin of the schwannoma. The current treatment approach is endonasal endoscopic resection of the tumour.3 The recurrence of this tumour is very rare and malignant transformation is also rare.4 Although there are very few cases of nasal septal schwannomas are reported in the medical literature, clinicians should think of this clinical entity in case of the mass found in the nasal septum. Here, we present a case of a large nasal septal schwannoma in a 32-year-old man.

CASE REPORT

A 32-year-old male attended the outpatient department of otorhinolaryngology with the complaint of nasal obstruction in the left nostril for two months. He had no history of nasal bleeding, hyposmia, facial pain and allergies. Anterior and posterior rhinoscopy showed smooth, firm and non-tender mass in the left nasal cavity arising at the posterior end of the nasal septum. A computed tomography (CT) scan of the paranasal sinus showed a mass at the posterior end of the nasal septum on the left side. The histopathological examination and immunohistochemical examination confirmed the diagnosis of the schwannoma. Surgical excision of the tumour is the primary treatment of choice in the case of nasal septal schwannoma. The transnasal endoscopic approach is considered the most commonly used approach for nasal septal schwannoma.
This tumour may occur as the imaging is not specific for schwannomas, the diagnosis of the nasal septal schwannoma depends on the histopathological report. The differential diagnosis of the schwannoma in the head and neck region is soft tissue tumours, malignancy and salivary gland tumours. The differential diagnosis of the nasal septal schwannoma includes nasal polyps, concha bullosa, inverted papilloma, retention cysts, antrochoanal polyp and chronic rhinosinusitis. Other less common differential diagnosis includes fibrous dysplasia, mucocle, pleomorphic adenoma, myxoma, lymphoma, ameloblastoma and squamous cell carcinoma.

CT scan picture is not specific for the diagnosis of schwannoma. However, a CT scan is helpful to identify the site and extent of the tumour. MRI is useful over CT scan for differentiating the tumours from the inflammatory lesions and normal tissues. In addition to this, MRI is also helpful for assessing the intracranial invasion of the tumor. As the imaging is very non-specific for schwannoma, the diagnosis of the nasal septal schwannoma depends on the histopathological report. The definite diagnosis of the schwannoma is done by histopathological examination. The use of the hematoxylin and eosin staining of the schwannomas will show Antoni A or B cell types structures. Insinonasal schwannoma shows tight organizing palisading called Verocay bodies. Antoni B cell is typically characterized by loose, myxoid stroma running in an irregular pattern with spindle cells throughout. Macroscopic picture of the schwannoma appear as well-circumscribed, encapsulated, cystic mass which is connected to the nerve tissue. Microscopically it is classified into two types: Antoni A and Antoni B patterns. Antoni A patterns consist of spindle cells organized as cellular areas with nuclear palisading. Antoni B pattern is characterized by disorganized b, loose myxoid stroma with few spindle cells.

The treatment option for nasal septal schwannoma is surgical excision which can be done lateral rhinotomy or endoscopic endonasal surgery. The endoscopic endonasal technique with or without image guidance is the standard surgical approach for the removal of the tumour. The advantages of endoscopic endonasal surgery are avoidance of the external incision, excellent visualization, minimal trauma to the surrounding tissues, shorter hospital stays lower morbidities in comparison to the external approaches. This clinical entity is typically curative and postoperative recurrence is extremely rare.

CONCLUSION

The schwannoma at the nasal septum is extremely rare in routine clinical practice. It can be considered as a differential...
diagnosis in benign lesions of the sinonasal tract. The final diagnosis is confirmed after histopathological examination and immunohistochemical analysis. The treatment of choice is complete excision of this tumour and it has an excellent prognosis. These tumours usually do not show recurrence after complete surgical excision. Currently, the trans-nasal endoscopic approach is considered the most effective approach for nasal septal schwannoma.

Acknowledgement: None

Conflict of interest: Nil

Funding: No funding sources were granted or used specifically for this work.

Author Contribution: SKS: Concept, data collection and data analysis; DK: Data collection and drafting.

REFERENCES