Intramuscular Hemangioma of the sternocleidomastoid muscle: A Rare Unusual Neck Mass.

Brihaspati Sigdel[1*], Rajesh Maharjhan[1], Tulika Dubey[1], Bhima Neupane[2]

[1]Department of Otolaryngology & Head and Neck Surgery, Gandaki Medical College
[2]Department of Anatomy, Manipal College of Medical Sciences, Pokhara, Nepal

ABSTRACT

Hemangiomas of the head and neck region comprise about 60 to 70% of all benign tumors. Intramuscular hemangioma is a rare, slow-growing, angiomatous tumor. We report a rare case of an Intramuscular Hemangioma of Right sternocleidomastoid muscle in a six years old girl presenting for four years and with extensive involvement necessitating excision. Microscopic excision reduces the risk of recurrence.

Keywords: Intramuscular Hemangioma, Microscopic excision, Recurrence.

***Corresponding Author.**
Dr. Brihaspati Sigdel
Associate Professor & Head of Department
Department of Otolaryngology & Head and Neck Surgery
Gandaki Medical College Teaching Hospital, Pokhara, Nepal.
Email: brihassig1@gmail.com

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INTRODUCTION

Hemangiomas are benign vascular tumors consisting of 60 to 70% of benign head and neck tumors[1] Hemangiomas are a tumor of infancy and most commonly occurring in cutaneous and mucosal surface.[2] Intramuscular hemangiomas (IMH) are rare tumors with the masseter muscle being the most common site, followed by the trapezius and sternocleidomastoid muscles respectively. Intramuscular hemangioma occurs during the first three decades of life. Pain is one of the presenting symptoms, and it is exacerbated by the exercise of the involved muscle as a blood vessel of the muscle dilates. Rarely there are bruits, thrills, compressibility like in other vascular malformations. Because of the rarity of intramuscular hemangioma, deep location, and unusual presentation, the inaccurate preoperative diagnosis had led to inappropriate diagnosis and incomplete excision.[3]

CASE

A six years old female child presented with progressively increasing swelling in the right lateral neck for four years in the Department of Otorhinolaryngology and Head and Neck Surgery (ORL-HNS) of Gandaki Medical College, a tertiary care hospital in western Nepal. There was no pain, no discharge, and no history of trauma to the neck. On examination, there was a 4x3cm firm globular mass at the apex of the right posterior triangle of the neck, no signs of inflammation overlying skin, no pulsation, and non-tender, soft consistency, irregular margin, non-compressible, and

fixed to underlying tissue but overlying skin is mobile. (Fig 1) No pulsation or bruit was noted and there was no lymphadenopathy.

Ultrasonography of the neck showed a 3.7x2.3 cm heteroerotic intramuscular lesion with thin septations. Color Doppler showed well defined hypoechoic mass with heterogeneity. Contrast-enhanced computed tomography reported hypodense lesion with peripheral nodular to central filling contrast enhancement, located within Sternocleidomastoid muscle. (Fig 2) With the above clinical features and radiological findings, the case was diagnosed as intramuscular hemangioma of the right Sternocleidomastoid muscles Due to an increase in the size of the swelling and extensive involvement of the tissue, she was planned for excision under general anesthesia.

Surgical exploration was done via a single horizontal transcervical incision from the posterior triangle. Tumor mass was exposed. Further dissection was performed under the vision of the microscope. The tumor was extensive involving SCM and part of to trapezius and scalenus anterior. Involved part of muscle resected. The spinal accessory nerve was identified and preserved. (Fig3). The post-operative period was uneventful Histopathological diagnosis was cavernous hemangioma. (Fig 4) No recurrence was observed during one year follow up period.

DISCUSSION

Intramuscular hemangiomas are benign vascular neoplasm which occurs in less than 1% of all hemangioma.[4, 5] It frequently involves the following muscle such as masseter, trapezius, and sternocleidomastoid Diagnosis of this type of hemangioma is difficult.[6] The differential diagnosis for intramuscular hemangioma includes schwannoma and rhabdomyosarcoma. FNAC does not help in diagnosis as aspirate is blood.[7]

Unlike superficial hemangioma, IMH does not demonstrate spontaneous regression.[3] In addition to that, according to the literature, radiotherapy therapy is contraindicated in the treatment of IMH because of the possibility of malignant transformation and low success rate. [8]

Based on our knowledge, tumor mass was resected along with the adjacent involved part of muscle tissue while taking care to preserve the spinal accessory nerve.[9] Careful microscopic dissection was done under a microscope so that whole of the tumor mass along with that involved muscles can be removed properly. The tumor was adherent to spinal accessory nerve and separated carefully under microscope No recurrence was observed in one year follow up period. in our study, The reported rate of recurrence varies from 9 to 28%.[10]

CONCLUSION

Hemangioma involving sternocleidomastoid muscle is a rare unusual neck mass. Surgical en-bloc excision is the main modality in the treatment of IMH. The microscopic excision of adjacent muscle tissue reduces the risk of recurrence.

Conflict of interest: None

Informed consent Written informed consent was obtained from the patients for this case report and any accompanying image

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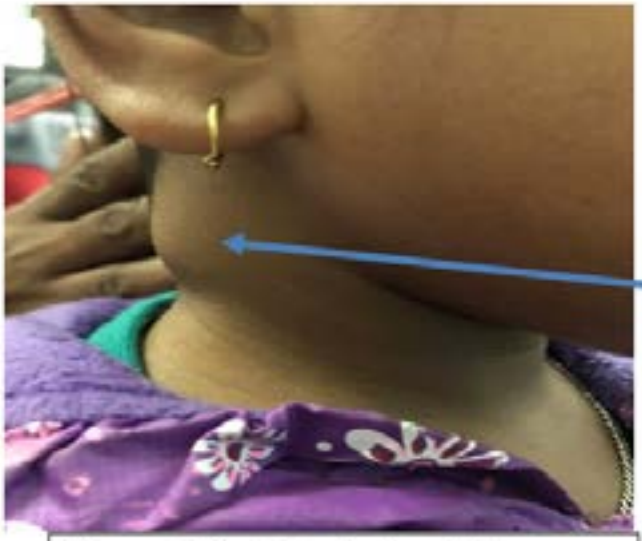

Figure 1 Swelling in the right

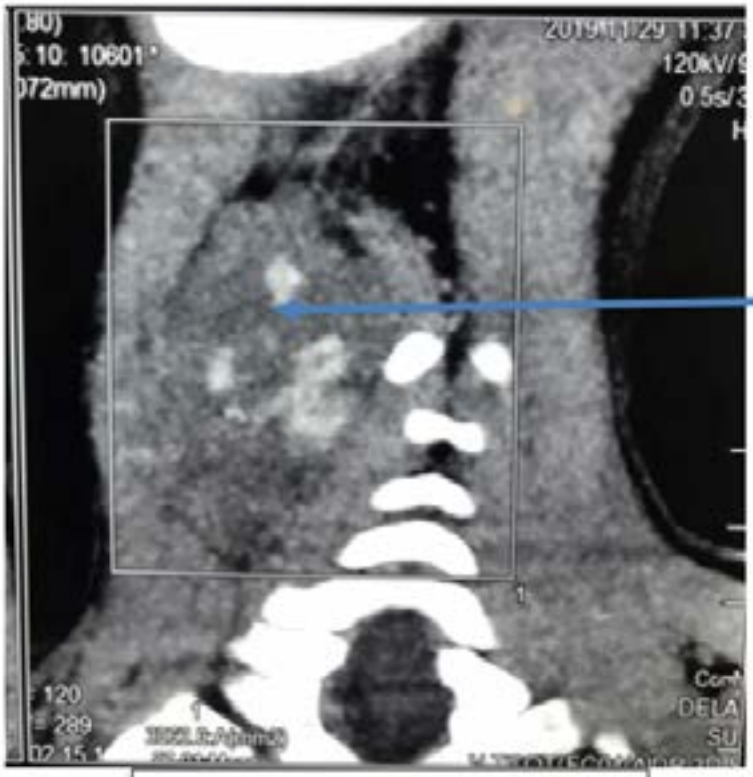

Figure 2 CECT Neck showing lesion in Right sternocleidomastoid muscle

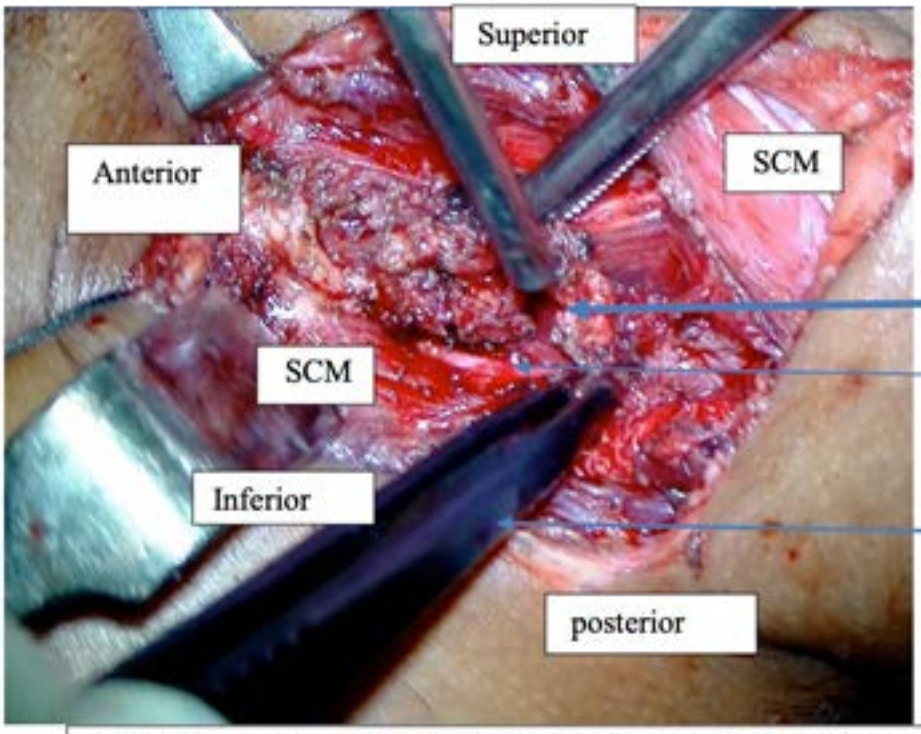

Fig.3 Intraoperative microscopic view of haemangioma in Right sternocleidomastoid muscle.

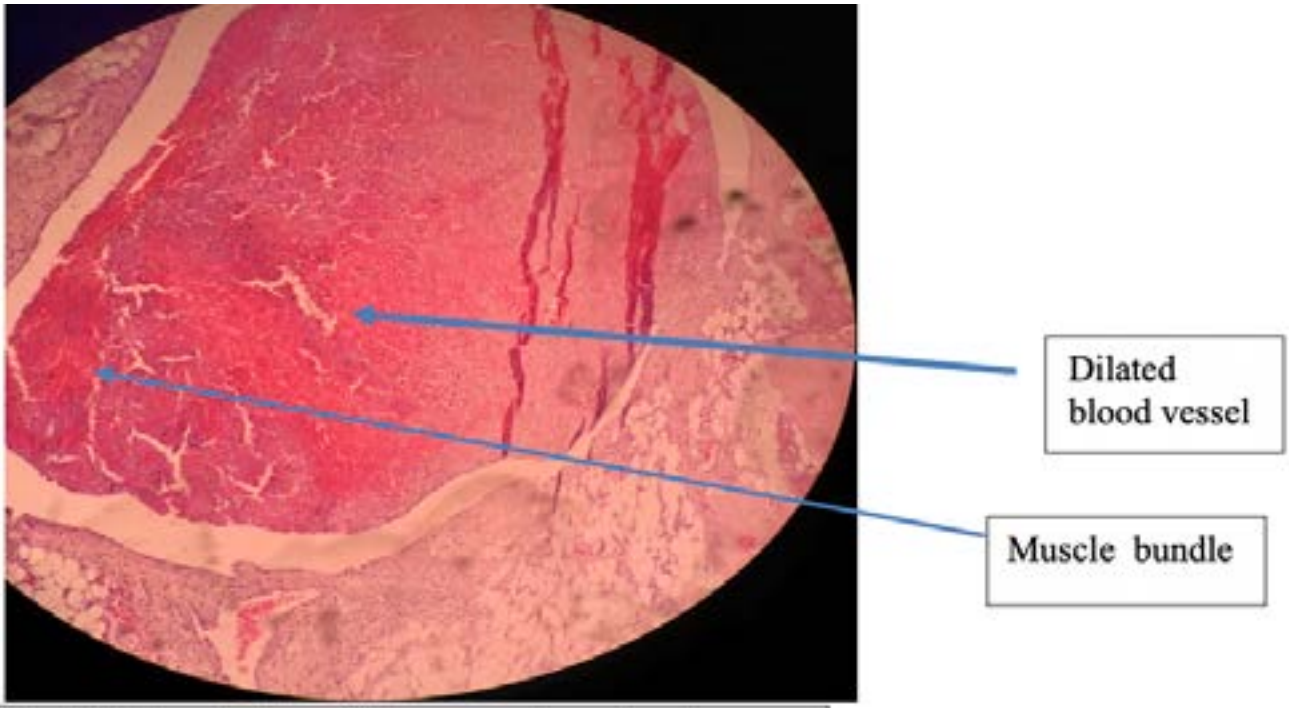

Fig 4. Histopathology of tissue specimen showing thin, ulcerated, and dilated blood vessel wall.and. muscle bundles in the periphery