ORIGINAL RESEARCH PAPER

Volume-8 | Issue-5 | May-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

CAVERNOUS HEMANGIOMA PRESENTING AS A NECK MASS : A CASE REPORT

ENT

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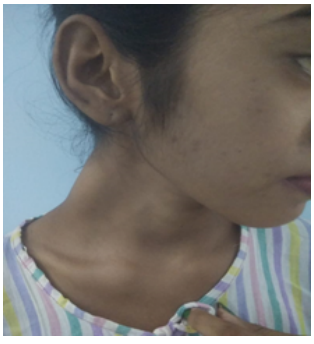
ABSTRACT

Cavernous hemangioma is a type of blood vessel malformation where a collection of dilated blood vessels forms a benign tumour. Cavernous heamangiomas can arise nearly anywhere in the body where there are blood vessel and unlike the capillary hemangiomas, cavernous ones can be disfuguring and donot tend to regress. Most common site for cavernous hemangioms are brain, liver , eye and here we are eliciting a rare site presentation in right side of neck.The patient Dipika Saikia, 19 year old female came with a gradually progressive neck swelling in the posterior triangle of neck which is soft in consistency and mobile. Basic investigation, FNAC and radiological imaging carried out and differential diagnosis came as atypical hemangioma or hypervascular nerve sheath tumour. Patient had undergone surgery in our department and mass was exciced from the right side of the neck in between levator scapulae and trapezius extending from apex of the posterior triangle to suprascapular region. Post-operative biopsy came as cavernous hemangioma.

KEYWORDS

INTRODUCTION:

Intramuscular hemangiomas are rare congenital vascular tumors accounting for less than 1% of all hemangiomas. They are frequently seen on the trunk and extremities, but up to 20% of hemangiomas are located in the head and neck region (1,8,4,6). Intramuscular hemangiomas often present in the second or third decade of life. Hemangiomas are classified into three groups, depending on their vascular structure: capillary, cavernous and mixed type (3,8,7,10). A case of a cavernous hemangioma involving the muscles on the right side of the neck is reported here. Surgical treatment was used to achieve a successful outcome.

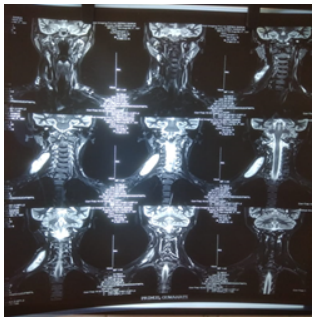


CASE REPORT

A 19-year-old female complaining of swelling on the right side of her neck since 2 years. On examination mass of approximately 9 cm x 3cm located in the right posterior cervical region. There was no restriction of her neck movements due to the mass. Neurological examinations were within normal limit. On palpation swelling was soft in consistency with absent trans-illumination and fluctuation. However, classical slip sign was present.

USG scan showed well defined hypoechoic lesion measuring 75 mm x 20 mm in the intramuscular plane right lateral aspect of neck showing minimal internal vascularity without calcification--- possible intramascular hemangioma MRI study of cervical spine including neck reveals predominantly T2 hyperintense well defined lesion in the right sided posterior triangle of the neck in between the levator scapulae and trepizius muscles of size 8.3x2.7x3.8— suggest possibility hypervascular peripheral nerve sheath tumor. D/D atypical hemangioma. FNAC report was inconclusive. Mass was totally extracted under general anesthesia.

Pathological study of the extracted mass indicated the presence of a cavernous hemangioma. Diagnosis was based on the presence of spontaneously crossing fibers, a wall thickness of approximately 1 cm, serous fluid mixed with blood, and a cystic component (Figure). No postoperative complications developed and the patient's restricted movement was totally resolved. No relapse seen in 6 months of follow-up.



DISCUSSION:

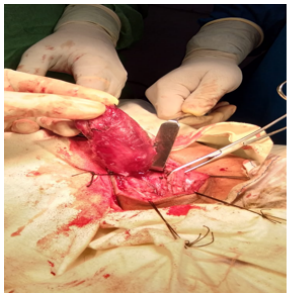
Hemangiomas are benign vascular tumors that likely occur due to abnormal development of embryonic vascular structures (3). Intramuscular hemangiomas account for less than 1% of all hemangiomas (1). They are most commonly found on the trunk and extremities. Up to 20% of hemangiomas are found in the head and neck region, where the masseter, trapezoid and sternocleidomastoid muscles are typically involved (3,1,2,7,10). Intramuscular hemangiomas are characterized by multicentric proliferation of endothelial cells (10). Hemangiomas are classified into three histopathological types according to the vascular structures involved:

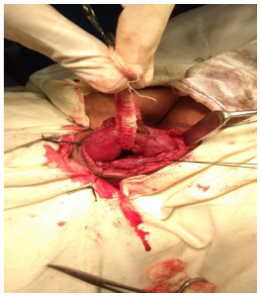
C) Capillary type: characterized by a capillary structure with proliferative activity and can surround tissues in its vicinity. It may have a short clinical history.

D) Cavernous type: characterized by mitotic activity, large vascular structures and a long clinical history.

E) Mixed type: containing both capillary and cavernous hemangiomas and clinically resembling a cavernous type hemangioma (3). Intramuscular hemangiomas are non-metastatic benign congenital tumors that may remain undetected for a long time. These tumors are likely to show spontaneous growth during the second or third decade of life. Almost 50% of cases remain silent until the mass grows and then pain suddenly occurs (1,7). In our case, the patient was 28 years old and had complained only of puffiness or swelling on Her right side of neck for a period of 3 years. The tumor then showed a sudden increase in growth that led to little restriction of the patient's neck movement. Various diagnostic methods, such as ultrasonography, computed tomography, MRI and arteriography, are used in the diagnosis of intramuscular hemangioma. Of these, MRI provides better information on the localization and size of intramuscular tumors. MRI findings for hemangioma include a moderate degree of signal enhancement in T1-weighted images and a strong signal increase in T2-weighted images. However, not all intramuscular hemangiomas

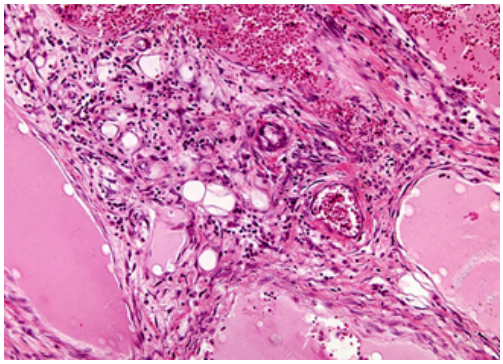
exhibit a strong signal increase in T2-weighted images (1,2,7,10). MRI reveals predominantly T2 hypointense well defined lesion measuring 8.3 (CC)X 2.7 (ML)X 3.8 (AP) cm in the posterior triangle of the neck in the right side abutting and compressing the trepizius muscle in the posterior aspect. The mass compresses / involves levator scapule muscle. Medially the lesion compresses the semispinalis muscle and laterally the subcuteneous fats. Suerioly the lesion extends in the muscle plane between trapezius and levator scapule. On T1 weighted images the lesion shows slightly hyperintense signal to the adjecent mucles. There are few void signals within the lesion on T 2 weighted images. DW images reveals mild restriction in the peripheral aspect. Dynamic contrast study of the lesion shows heterogenous enhancement of the lesion.





Haemangioma should be considered in the differential diagnosis whenever a mass of soft tissue density is encountered in the region of skeletal muscle in a young adult. Haemangioma could be distinguished from other soft tissue lesions by the features of abundant vascularity and high blood flow velocity. Haemangioma with arterial flow can be distinguished from arteriovenous malformations (AVM) by the presence of solid parenchymal tissue. Lipomas are one of the mesenchymal tumours that must be considered in the differential diagnosis. Lipomas can be seen in all parts of the body but rarely in the cervical area. The clinical presentation is an asymptomatic, painless and slow growing mass . Lipomas are rarely seen in the first and second decades. The incidence of lipomas increases especially in the fifth and sixth decades with the combination of a sedantary life and low activity that raises the total body fat. It is usually seem in the obese population and its size is related to fast weight gain periods. Hemangiomas are usually asymptomatic in the first decade and become symptomatic in the second and third decades with increasing tumour growth. Lipomas are seen as homogenous and low density masses in the computed tomography (CT). There is no capsule formation. CT images are sufficient for diagnosis of lipomas and there is no need for advanced tecniques such as magnetic resonance imaging (MRI).

When considering a treatment regime for an intramuscular hemangioma, it is mandatory to consider the size of the mass and cosmetic and functional aspects, as well as the patient's age (1,4). Multiple therapeutic methods are used depending on the state of the tumor. Treatment may involve radiotherapy, systemic steroid administration, intralesional steroid or sclerosant injection, cryotherapy, vascular ligation, embolization and surgical excision. Total surgical excision is usually preferred, since the rates of success with other methods are limited (1,5,4,10). However, Total surgical excision was used under general anesthesia in our case. The restriction in neck movement was entirely resolved and no any relapse occurred during 6 months follow-up of the patient. In conclusion, the most suitable treatment method for intramuscular hemangioma is surgical excision. The risk of relapse can be minimized by total surgical excision.



Conclusion

The hemangiomas are benign proliferation of endothelial cells common in head and neck and relatively rare in neck . The identification of hemangioma is challenge as these lesions clinically resembles to other entities like vascular malformation, pyogenic granuloma, epulis , varicosities and sq. Cell carcinoma. Most congenital hemangioma regress spontaneously without treatment. However we conclude that surgery is the therapy of choice in an isolated vascular lesions involving the neck.

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