Acquired Capillary Hemangioma of the Cheek

ABSTRACT

Acquired capillary hemangiomas are a rare group of benign vascular tumors which are not mentioned in the classification of vascular anomalies by International Society for the Study of Vascular Anomalies. We are reporting a cutaneous vascular lesion of the cheek in a 34-year-old male which was surgically excised and confirmed as capillary hemangioma on histopathology.

Key words: Acquired, Capillary, Hemangioma

INTRODUCTION

Hemangiomas are the most common benign vascular tumors. They are most commonly found in head and neck. They are usually found at birth or in infancy. Similar vascular lesions found in adults are vaguely referred as known as adult or acquired capillary hemangiomas and have not been mentioned in the classification of vascular anomalies. We are reporting one such case of a 34-year-old adult with a cutaneous vascular lesion on cheek which was surgically excised and turned out to be a capillary hemangioma on histopathological examination.

CASE REPORT

A 34-year-old man presented with a swelling on the left cheek for 1 month and was associated with bleeding. On examination, a nodular, pedunculated lesion was noted about 0.8 cm x 0.6 cm on the left cheek [Figure 1]. A provisional diagnosis of benign vascular lesion was made. Pre-operative blood investigations were done and coronavirus disease reverse transcription polymerase chain reaction test was done which was negative. The lesion was excised with electrocautery under local anesthesia. Histopathological examination of excised specimen gave a diagnosis of capillary hemangioma [Figure 2].

DISCUSSION

Vascular anomalies have been classified by International Society for the Study of Vascular Anomalies in 1996 based on the classification, proposed by Mulliken and Glowacki.[1,2] Accordingly, vascular anomalies are classified into vascular tumors and malformations.[1,3,4]

Hemangiomas are the most common vascular tumors.[1] Hemangiomas are classified according to the time of presentation as “congenital” or “infantile.”[3] Congenital hemangiomas are rare and present at birth.[3] They either rapidly involute in infancy (rapidly involuting congenital hemangioma) or never involute (non-involuting congenital hemangiomas).[3] Infantile hemangiomas are the most common tumor in infancy and occur in around 4–10% of the population.[3,4] Based on their depth, hemangiomas can also be classified as superficial, deep, and compound.[1] The superficial hemangioma extends into the superficial dermis and appears red and nodular.[3,5] A deep hemangioma involves the lower dermis or subcutaneous tissue and presents as a protrusion with an overlying bluish hue.[3,5] Compound hemangiomas have both deep and superficial components.

Although this method of classifying vascular anomalies caters to a majority of clinical and histological entities and clearly differentiates between congenital and infantile hemangiomas, there still exists some controversy regarding the nomenclature of similar lesions arising in adults.[6] They are vaguely referred to as adult or acquired capillary hemangiomas by most authors and do not find a place in the current classification system.[6] The clinical and histopathological findings are usually consistent with that of capillary hemangiomas typically seen in infancy.[7] Acquired capillary hemangiomas appear to be true capillary neoplasms and need to be carefully differentiated from neoplastic conditions such as Kaposi’s sarcoma, angiosarcoma, acquired tufted angioma, and intravascular papillary endothelial hyperplasia.[8,9]

The exact etiology is unknown. Hormonal changes and increased estrogen levels during puberty and pregnancy have been associated with hemangioma.[30,11] Overexpression of angiogenic
growth factors, including vascular endothelial growth factor (VEGF), has been associated with capillary hemangiomas.[12]

The main reasons for seeking treatment are non-regressive nature of the lesion, cosmesis, visual obstruction, and prevention of accidental trauma and bleeding.[12]

Clinical history and physical examination clinch the diagnosis in more than 90% of infantile hemangiomas.[4] Radiologic assessment with ultrasonography, computed tomography (CT), or magnetic resonance (MR) imaging is useful in the pretreatment evaluation of the patient.[4] Ultrasonography scan shows an irregular mass with variable echoes blending into surrounding tissues and is used to rule out orbital involvement and to monitor the size of the lesion.[13] On CT scan, capillary hemangiomas appear as homogeneous soft-tissue masses without destruction of the underlying bone.[13] The use of contrast CT and MR imaging helps in delineating the border and identifying the feeder vessels.[13] 3D CT volume rendering technique can be used to delineate the fine anatomical details which are difficult to evaluate with axial reconstructions alone. Angiography is rarely used to identify the feeder vessels for ligation or embolization in life-threatening hemangiomas unresponsive to other therapies.[13] Tissue biopsy may be rarely needed to differentiate the lesion from neoplastic and aggressive lesions.[13]

Although most of the infantile hemangiomas undergo spontaneous involution, some may require intervention.[13]

Non-surgical interventions include the use of corticosteroids which accelerate the regression of the lesion.[4] Intralosional corticosteroids (triamcinolone) are used for small, well-localized hemangiomas while systemic corticosteroids for large or multiple hemangiomas.[4] Recombinant interferon alfa (2a or 2b), vincristine, cyclophosphamide, imiquimod, and antiangiogenic agents such as bevacizumab are the other drugs found to be effective in life-threatening hemangiomas.[4,13] Their use is limited by their variable responses and toxicities.[4] Systemic propranolol has also been used successfully.[13] The exact mechanism of action is not known, but vasoconstriction, decreased expression of VEGF, and induction of apoptosis of capillary endothelial cells are supposed to cause regression of the lesion.[13]

Surgical resection is recommended in cases where conservative therapy has failed, and where the hemangioma is blocking the airway or vision or is bleeding.[4,13] Low-level radiotherapy can speed the regression of the mass by creating microembolisms in the tumors.[13] Carbon dioxide, argon, neodymium–yttrium aluminum garnet, and flash-lamp pumped dye laser have also been used in the treatment.[13]

CONCLUSION

Lesions such as hemangioma when fail to regress, present with complain of bleeding, and cause cosmetic problems should be surgically excised.

CLINICAL SIGNIFICANCE

While reporting this case of acquired hemangioma and discussing its clinical features and management, we have highlighted the entity of acquired capillary hemangioma which has not been mentioned in the recent International Classification of Vascular Anomalies.

REFERENCES

1. Theologie-Lygidakis N, Schoinohoriti OK, Tzerbos F, Iatrou I. Surgical management of head and neck vascular anomalies in children: A retrospective analysis of 42 patients. Oral Surg Oral Med Oral Pathol Oral Radiol 2014;117:e22-31.
2. Vijayanand S, Ranganatha N, Singh M, Babu R. Unusual case of acquired capillary hemangioma of the eyelid in an adult. Ann Maxillofac Surg 2017;7:308-11.
3. Richter GT, Friedman AB. Hemangiomas and vascular malformations: Current theory and management. Int J Pediatr
Soumick Ranjan Sahoo and Mandira Sarma

Acquired capillary haemangioma of the cheek

12012;2012:645678.
4. Mulliken JB, Fishman SJ, Burrows PE. Hemangiomas and other vascular tumors. In: Wells SA, editor. Current Problems in Surgery: Vascular Anomalies. Boston: Mosby; 2000. p. 529-51.
5. McGill T, Mulliken J. Otolaryngology head and neck surgery. In: Vascular Anomalies of the Head and Neck. Baltimore: Mosby; 1993. p. 333-46.
6. Connor SE, Flis C, Langdon JD. Vascular masses of the head and neck. Clin Radiol 2005;60:856-68.
7. Peralta RJ, Warner TE, Potter HA, Albert DM. Adult capillary hemangioma. Arch Ophthalmol 2012;130:999.
8. Brannan S, Reuser TQ, Crocker J. Acquired capillary haemangioma of the eyelid in an adult treated with cutting diathermy. Br J Ophthalmol 2000;84:1322.
9. Leroux K, den Bakker MA, Paridaens D. Acquired capillary hemangioma in the lacrimal sac region. Am J Ophthalmol 2006;142:873-5.
10. Pushker N, Bajaj MS, Kashyap S, Balasubramanya R. Acquired capillary haemangioma of the eyelid during pregnancy. Clin Exp Ophthalmol 2003;31:368-9.
11. Garg R, Gupta N, Sharma A, Jain R, Beri S, D'Souza P, et al. Acquired capillary hemangioma of the eyelid in a child. J Pediatr Ophthalmol Strabismus 2009;46:118-9.
12. Steeples LR, Bonshek R, Morgan L. Intralosional bevacizumab for cutaneous capillary haemangioma associated with pregnancy. Clin Exp Ophthalmol 2013;41:413-4.
13. Bang GM, Setabutr P. Periocular capillary hemangiomas: Indications and options for treatment. Middle East Afr J Ophthalmol 2010;17:121-8.

How to cite this article: Sahoo SR, Sarma M. Acquired Capillary Hemangioma of the Cheek. Bombay Hosp J 2021;63(1):39-41.

Source of support: Nil, Conflicts of interest: None

This work is licensed under a Creative Commons Attribution 4.0 International License. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in the credit line; if the material is not included under the Creative Commons license, users will need to obtain permission from the license holder to reproduce the material. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/ © Sahoo SR, Sarma M. 2021.