

# A Unique Case of Acquired Capillary Hemangioma in Adult

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## Abstract

Adult capillary hemangioma is a rare clinical entity. We report a typical case presentation of capillary hemangioma in adult. A 55-year-old male presented with a history of hyperpigmentation of the complete left half of the face and right lower half of face since birth. He started developing nodules from age 25 which gradually increased. On examination, non-tender and hyperpigmented multiple nodular swellings present on the face involving the left side. Visual acuity in the left eye is the perception of light, projection of rays positive, and right eye is 6/9. Capillary hemangioma of the adult is a rare condition whose pathophysiological process is still unclear.

**Key words:** Acquired capillary hemangioma, Adult capillary hemangioma, Vascular tumor

## INTRODUCTION

Most capillary hemangioma is congenital in nature. Acquired cases are very rare. To the best of our knowledge, only eight such cases have been reported in literature. We report the case of a 55-year-old male with acquired capillary hemangioma of the left half of the face and right lower half of face. Capillary hemangioma is a benign vascular tumor composed of proliferating endothelial cells within fibrous tissue in a normal location. It is the most common vascular tumor in infancy. It usually presents within the 1<sup>st</sup> few weeks or months of life.<sup>[1]</sup>

## CASE REPORT

A 55-year-old male presented with loss of vision in the left eye followed by a history of trauma in the childhood. History of hyperpigmentation of the complete left half of the face with the right lower half of face since birth started developing nodules from age 25 and gradually

increased. Ocular examination including visual acuity, anterior and posterior examination, and b scan was done. Non-tender and hyperpigmented multiple nodular swellings on the face involving the left side and lower half of right side. Visual acuity in the right eye is 6/9 and left eye is the perception of light and projection of rays negative.

The left eye has dilated congested episcleral vessels, macular corneal opacity with bleeding spot at 10'o clock position, calcification at 4'o clock–6'o clock position and vascularization at 12'o clock position. The right eye has dilated episcleral vessels. Fundus was normal in the right eye. B scan showed tractional retinal detachment in the left eye.

## DISCUSSION

Acquired capillary hemangioma of the eyelid and periorcular region is a very rare phenomenon.<sup>[2]</sup> The exact etiology is not known. It has been associated with hormonal changes and increased estrogen levels during puberty and pregnancy.<sup>[3]</sup> Overexpression of angiogenic growth factors, including vascular endothelial growth factor (VEGF), has been associated with capillary hemangioma. Cosmesis, visual obstruction, and bleeding are the main reasons for seeking treatment.<sup>[4]</sup> The pathogenesis of infantile hemangioma remains unclear, although two

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theories dominant current thought. The first theory suggests that hemangioma endothelial cells arise from disrupted placental tissue imbedded in fetal soft tissues during gestation or birth.<sup>[5]</sup> A second theory arose from the discovery of endothelial progenitor and stem cells in the circulation of patients with hemangioma.<sup>[6]</sup> Genetic errors in growth factor receptors have also been shown to affect the development of hemangioma.<sup>[7]</sup> Nonsurgical interventions include the use of corticosteroids, which accelerate the regression of the lesion. Intralesional corticosteroids (triamcinolone) are used for small, well-localized hemangioma while systemic corticosteroids for large or multiple hemangiomas.<sup>[8]</sup> Recombinant interferon-alpha (2a or 2b), vincristine, cyclophosphamide, imiquimod, and antiangiogenic agents such as bevacizumab are the other drugs found to be effective in life-threatening hemangiomas.<sup>[9,10]</sup> Systemic propranolol has also been used successfully. 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.<sup>[10]</sup> Surgical resection is recommended in cases where conservative therapy has failed, and where the hemangioma is blocking the airway or vision or is bleeding.<sup>[9,10]</sup> Pre-operative imaging, including magnetic resonance (MR) imaging, MR angiography, and angiogram is necessary to identify the feeding vessels. Low-level radiotherapy can speed the regression of the mass by creating micro embolisms in the tumors. Carbon dioxide, argon, Nd: YAG laser, and flash-lamp pumped-dye laser have also been used in the treatment.<sup>[10]</sup> There is, however, no standard treatment modality for the hemangioma.

## CONCLUSION

Adult capillary hemangioma does not involute like their infantile counterparts. Ophthalmologists should be aware of the ocular complications of this tumor. Early recognition and timely diagnosis and treatment may prevent amblyopia and cosmetic disfigurement.

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