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Letters to the Editor

A case of vascular malformation

Dear Editor

Vascular malformations and hemangiomas can cause significant morbidity in both children and adults. For number of reasons, physicians often confuse these lesions leading to delay in optimal management. Here we report a case of vascular malformation of chest and describe the application of biological classification system of vascular anomalies to aid in their diagnosis.

A term male baby was noticed to have swelling of size $6 \times 6 \times 2$ cm over left side of chest. General physical examination was normal. On local examination swelling was soft, non-tender, reddish, warm and without any bruit (Fig. 1). There was no ulceration or bleeding. Doppler examination revealed multiple tortuous dilated (6–7 mm) vascular channels seen in subcutaneous plane without any intervening parenchyma or phleboliths and showed low velocity flow. No evidence of direct communication between artery and/or vein was seen (Fig. 2). He was diagnosed as a case of low flow vascular malformation and is now under follow up.

The vascular anomalies have been divided into two primary biological categories: (1) vasoproliferative or vascular neoplasms and (2) vascular malformations. Vascular malformations have increased endothelial turnover (i.e. they proliferate and undergo mitosis). Vascular malformations do not have increased endothelial turnover. Instead they are structural abnormalities of the capillary, venous, lymphatic and arterial system that grow in proportion to the child.^{1,2} Most common vascular neoplasm is hemangioma, term which is restricted to birthmarks having endothelial proliferation and a clinical course of rapid postnatal growth (proliferative phase) for the first 8–12 months, followed by slow regression over 5–8 years (involution phase). Imaging studies show that hemangioma is an organized mass arranged in a lobular configuration. Vascular malformations consist entirely of vessels of different caliber without intervening parenchyma.¹ It is clinically useful to separate the vascular malformations into 'slow flow' (capillary, venous, lymphatic or combined forms) or 'fast flow' (arteriovenous fistulas and arteriovenous malformations) categories.

Clinically hemangiomas are absent or present as only faint mark at birth, grow rapidly and then involute. However vascular malformations are present since birth and grow proportionately with growth of child. They never involute. MRI and angiography are essential for evaluation of symptomatic malformations. The slow flow vascular malformations present with slow and steady enlargement, they may be painful or cause morbidity because of their location. No treatment is necessary if vascular malformation is asymptomatic. Sclerotherapy is a treatment of choice for slow flow lesions, others options are compression garments, surgical excision or laser. High flow lesions may present with pain, ulceration, ischemic changes, bleeding or congestive heart failure. They are managed using a combination of feeding artery embolization, sclerotherapy and surgery.² Majority of hemangiomas invariably regress.¹ Corticosteroids, interferons, vincristine, propranolol, laser or surgery have been used for problematic hemangiomas.³

Fig. 1 – Swelling over lateral aspect of left side of chest.

Fig. 2 – Doppler showing multiple tortuous dilated vascular channels.

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Hypermetropic shift following CTR implant

Dear Editor,

We have read the article titled “A Study To Evaluate whether CTR increases unpredictability between predicted and actual IOL position” by Baranwal et al published in MJAFI 2014; 70:36–38. The findings of a hypermetropic shift following CTR implant and phacoemulsification and IOL implant in eyes with partial zonular dehiscence are very unique. While most surgeons would be content to get a good visual outcome with minor corrections in these surgically challenging cases the authors have gone ahead and looked into the finer aspects of refractive shift in predicted IOL power, which is quite laudable.

However it is not quite clear whether the posterior shift can be attributable to the CTR implant. Eyes with zonular dehiscence are often associated with a deeper anterior chamber and posterior shift in the Iris lens diaphragm. Vitreous loss and syneresis in such eyes also leads to poor vitreous support and may itself be responsible for the posterior shift documented by the authors. The authors have used the SRK II regression formula for predicting the IOL power, which may not be the most

accurate in these circumstances.¹ Modern theoretical formulas like the Haigis L and Holladay 2 reported to have greater accuracy in such cases, could have been used to improve the accuracy of the predicted IOL power.² Ideally a preoperative and post-operative ultrasound biomicroscopy of the same case at least in those cases, which present with zonular dehiscence should have been done in order to document an actual shift. In fact the CTR was designed not only to stabilize the capsular bag and permit safe phacoemulsification but also to help in centration of the IOL and achieve more predictable refractive outcomes. Though the CTR has definitely improved the safety of phacoemulsification in these cases but perfect centration and improved refractive outcome has not always been achieved.^{3,4} An alternative to the CTR in these cases is the Cionni ring, the advantage being that, it can be fixated by sutures to the scleral sulcus thereby ensuring better centration and placement of the IOL in the proper plane.⁵

The recommendation of the authors regarding hypermetropic shift and correction in calculated IOL power in