Haemangiomas versus vascular malformations: correct diagnosis for correct treatment

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Received: 22 December 2008 / Accepted: 20 February 2009
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Dear Sir,

I wonder if vascular malformations are confused for haemangiomas in “A rare intramuscular haemangioma - a case report” published in *Indian Journal of Surgery* (2008;70:250–251), because such diagnostic errors are ubiquitous. Vascular anomalies are the most commonly wrongly diagnosed and therefore wrongly treated.

The vascular anomalies are classified under two categories: haemangiomas and vascular malformation. The nosologic key is to restrict the suffixoma to a lesion that arises by cellular proliferation. Thus, haemangioma denotes a benign neoplasm composed of hyperplastic endothelium. On contrary, the vascular malformations are singled endothelium lined vascular spaces which can be either in capillary, venous, lymphatic and arterial. This biologic classification is accepted by International Society of Vascular Anomalies in Rome [1].

The diagnosis is made clinically and is possible in 90% of patient. Only when clinical diagnosis is not clear for vascular anomalies and if there is doubt of other type of lesion, the best investigation is to biopsy the lesion [2]. However, biopsy of suspected vascular lesion should be done only in specialised centres where expertise and facilities are available for managing complications such as

torrential bleeding. The radiological investigations are only done before treatment to study the extent of lesion and after treatment to know the response.

The article presented that vascular lesion in young 13-year-old child right forearm in probably ‘right handed’ patient without any major symptoms. Non-pulsatile bluish swelling clinches the diagnosis of venous malformation which was confirmed on X-ray by phlebolith which is hall mark of venous malformation. Phleboliths are calcified body formed in blood clots in these slow flow malformations. The pain in intramuscular venous malformation is due to clotting and phleboliths. The long-term treatment with low dose aspirin (100 mg/day) with pressure garment will prevent the clot formation. Nearly 25% of venous malformation will respond to this conservative treatment [3]. Second-line of management is sclerotherapy done by intervention radiologist preferably with 100% alcohol. Surgery is the last mode of therapy and done for localised lesions. If conservative treatment and sclerotherapy fail, then radical surgery like excision of group of muscle is indicated. Loss of muscle in forearm is loss of function in a young adult. The complications like contracture, secondary deformities of fingers and loss of overlying skin is not uncommon. In addition, tendon transfer may be necessary to regain any lost function [4].

The message I would like to reiterate is that vascular anomalies need to be correctly diagnosed for correct treatment. Though they look sinister to medical professional and of course to patients as well, many of them can be treated conservatively. Intervention radiologist will provide a great help in treating these complicated malformation. Surgery is indicated for specific reasons and morbidity of surgery need to be properly weighed again gains especially for the non-symptomatic lesions.

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Haemangiomas	Vascular malformation
Benign neoplasm of hyperplastic endothelium of capillaries	Structural abnormalities of vascular morphogenesis of different types: Capillary, venous, lymphatic, arterial or combinations
Female > Male	Female = Male
Likely to be at present at birth, but increase in size out of proportion of child specially during first 6 months	May appear later and gradually increase in size as child grows
Involution after 12–18 months	Never involutes, except in lymphatic malformation which can reduce in size due to infection or emptying out in body circulation

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