CASE REPORT

Basilic vein haemangioma: an unusual differential diagnosis for cubital fossa mass

Albert Abhinay Kota, Darpa Hazra, Andrew Dheepak Selvaraj

Department of Vascular Surgery,
Christian Medical College and
Hospital, Vellore, Tamil Nadu,
India

Correspondence to

Dr Albert Abhinay Kota,
albertkota@cmcvellore.ac.in

Accepted 14 March 2018

SUMMARY

Subcutaneous masses along the cubital fossa can be a diagnostic dilemma. Most patients are asymptomatic and usually present for a cosmetic reason. Diagnosis can be confirmed by radiological findings and histopathology. We present a case report of a similar mass that turned out to be a haemangioma arising from the basilic vein with brief review of literature.

BACKGROUND

Cubital fossa subcutaneous masses are rare. Differential diagnoses include lipoma, sebaceous cyst, neurofibromas, skin appendage tumours, calcinosis, ganglion, bursal cyst and venous haemangiomas/malformations. It is important to include tumours arising from vascular origin based on clinical features and radiology to manage them efficiently.

CASE PRESENTATION

A middle-aged man presented with a swelling in the right cubital fossa for 5 years, insidious in onset and gradually increasing in size. Examination revealed 4×4 cm subcutaneous, non-tender and cystic swelling, which was partially compressible in the right cubital fossa. There were no distal neurovascular deficits.

INVESTIGATIONS

Ultrasound screening showed a well-defined lesion with central hypoechoic area and peripheral echogenic area and cystic spaces. MRI (figure 1A) revealed peripheral thick-walled and central uniformly increased density with no enhancement on contrast, features suggestive of a cavernous angioma or a low-flow aneurysm causing mass effect on the basilic vein.

DIFFERENTIAL DIAGNOSIS

Lipoma, sebaceous cyst, neurofibromas, skin appendage tumours, calcinosis, ganglion, bursal cyst, venous aneurysm, venous malformation, venous haemangioma, lymphatic malformation.

TREATMENT

Surgical excision (figure 1B,C).

OUTCOME AND FOLLOW-UP

Histopathological examination revealed numerous thick and thin-walled congested vessels with organising thrombi. The fibrocollagenous stroma shows

mild to focal moderate infiltrates of lymphocytes and histiocytes (figure 1D)—features of benign angiomatous lesion consistent with a venous haemangioma. His postoperative period was uneventful.

DISCUSSION

Soft tissue masses in the cubital fossa are not commonly seen in general practice. There is a variety of differential diagnoses to be considered which include lipoma, sebaceous cyst, neurofibromas, skin appendage tumours, calcinosis, ganglion, bursa cyst, pseudoaneurysm and venous haemangiomas/malformations. Lipoma has a classic slipping edge with pseudofluctuation. Sebaceous cysts have a punctum. Neurofibromas are multiple and can have syndrome association. Ganglion/bursal cysts are commonly seen at the wrist. Calcinosis can be hard in consistency. Soft tissue swelling, which is compressible, should have lymphatic or vascular origin. Lymphatic masses are usually transilluminant. If there is history of trauma or invasive catheter use in the cubital fossa, brachial pseudoaneurysm can be a possibility. If the mass is compressible and close to a site of vessel, venous haemangioma/vascular malformation needs to be considered.

Haemangiomas are benign, self-involuting tumours arising from the endothelial cells. They are commonly mistaken to be vascular malformations and need to be differentiated as the treatment is varied ranging from non-surgical options like injecting sclerosants for venous/lymphatic malformations, embolisation for arterial malformations whereas haemangiomas can be self-limiting. Some treatment options for haemangiomas are topical/intralesional steroids, laser dye therapy, and excision is done mainly in the postinvolved phase. Haemangiomas commonly occur in children, accounting for majority of the childhood vascular tumours. Typically, they have a proliferative phase and an involuting phase. They can arise in various anatomic locations, which include skin, subcutaneous tissues, vessels, striated muscles and synovial tissues. Basilic vein haemangiomas are very rare and usually, the diagnosis is based on histopathology and radiology as in our case.¹⁻⁴

The dilemma lies in distinguishing between venous malformations, venous aneurysm and venous haemangioma as the aetiopathogenesis and management is different for each condition. Most often the terms are interchangeably used and can be often misleading. Venous malformation is the most common form of congenital vascular malformation,

To cite: Kota AA, Hazra D, Selvaraj AD. *BMJ Case Rep* Published Online First: [please include Day Month Year]. doi:10.1136/bcr-2015-211343

Figure 1 Anticubital fossa mass/basilic vein haemangioma. 1A - MRI; 1B, 1C - Surgical excision; 1D - Histopathology

presenting at birth and will continue to grow slowly. Venous aneurysms are very rare anomalies, defined as localised aneurysmal dilatation of vein wall. They can be congenital or due to trauma or infection. Venous haemangiomas are larger in size and have a higher tendency of thrombosis or calcification.^{1 5 6}

Ultrasound imaging in venous haemangioma usually reveals a hypoechoic mass of heterogeneous texture with multiple cystic spaces within. Colour Doppler may show peripheral enhancement/feeding vessels. MRI is the preferred investigation of choice to delineate the extent and type of the lesion. If the lesion involves the joint space or musculoskeletal structures, venous

malformation is the diagnosis and staged sclerotherapy can be offered. Excisional biopsies are the treatment of choice if it is peripherally located.^{1 2 4 5 7}

Learning points

- Tumours of vascular origin like venous haemangiomas are to be included in differential diagnoses for a subcutaneous mass.
- Venous aneurysms need to be differentiated from haemangiomas.
- Venous malformations are usually congenital in origin.

Contributors AAK, DH: manuscript preparation. AAK, ADS: manuscript revision and edition. AAK, ADS: overall responsibility.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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