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CYSTIC HYGROMA OF FOREARM: A RARE CASE REPORT

General Surgery

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ABSTRACT

Cystic hygroma, a variant of lymphangioma is a benign infiltrative tumor of lymphatic channels mainly occurs as congenital. It commonly occurs in neck, axilla, mediastinum and retroperitoneum. It may also occur secondary to trauma, infection, inflammation or degeneration. Cystic hygromas are rarely seen in adults and presentation in the upper limb is uncommon. We report a rare case of a 20-year-old male who presented with a painless cystic swelling in the left forearm. Ultrasonography shows large cystic lesion in the left forearm and proceeded with the surgery. Histopathological examination of excised cystic mass showed it to be a lymphatic malformation (cystic hygroma) of forearm. Complete surgical excision of lymphangioma done to prevent recurrence

KEYWORDS

Cystic hygroma, Lymphangioma, Forearm

INTRODUCTION

Cystic hygroma is a type of lymphatic malformation occurs more frequently as compared to other types of lymphangioma and may compose of single or multiple macro cystic lesions having scarce communication with normal lymphatic channels.[1] Cystic hygromas can occur anywhere in the body. The common locations are cervico-facial regions, axilla, mediastinum, groin and abdomen.

Although it also can occur at other rare sites like extremities, lumbar region, joints. Here we are presenting a case report of cystic hygroma of upper extremity.

CASE REPORT:

A 20-year-old male presented to us with a slow growing gradually progressive painless swelling in the left forearm for 8 years [Fig 1].

There is no history of trauma. On clinical examination, a 11x5 cm ovoid, non-tender, soft cystic swelling was palpable in the left forearm in dorsal aspect, which was clinically fluctuant, brilliantly trans-illuminant. Ultrasound revealed a large encysted collection involving the dorsal aspect of forearm with cyst adherent to the skin and it is not involving the deeper structures.

The cyst was aspirated and has a clear fluid and sent for analysis which was inconclusive. patient underwent surgery has a 12x5x2 cm multi-loculated cystic lesion was found containing the clear fluid and the cyst wall was adherent to the epidermis and the fascia downwards. The cyst wall was separate from the underlying muscles. [Fig 2]

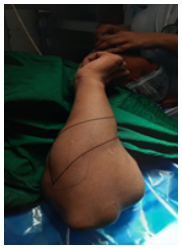

Fig 1: Left forearm swelling(marked)

The entire extent of cystic mass was carefully dissected out in toto by separating and preserving the skin and underlying structures.

Gross examination of cystic mass showed multi loculated cystic cavities [Fig 3] and was filled with clear lymphatic fluid.

On microscopic examination, sections showed many dilated collapsed thin walled channels lined by flattened endothelium, diagnosis of cystic hygroma [Fig 4]. The intra operative and post-operative period was uneventful and patient was discharged on 5th post-operative day. Repeat USG after 2 months shows no recurrence.

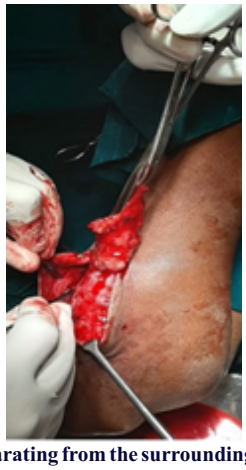

Fig 2 Cyst wall separating from the surrounding structures

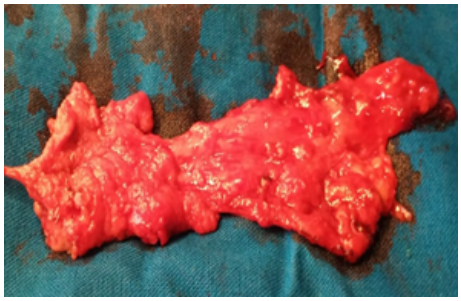

Fig 3 Gross photograph of cystic mass showing multiple variable size cystic cavities

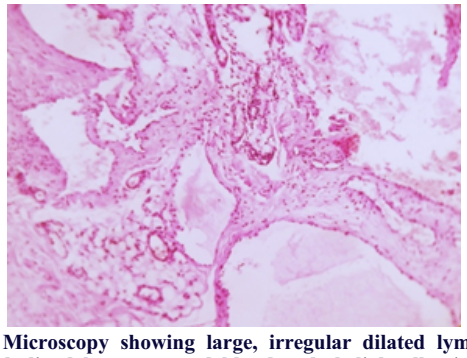

Fig 4 Microscopy showing large, irregular dilated lymphatic channels lined by attenuated bland endothelial cells s/o cystic hygroma

DISCUSSION:

Lymphangiomas are malformations of the lymphatic system that occur as a result of the failure of lymph to drain from lymphatic vessels with consequent dilatation of the ducts and formation of a cystic mass. Most of these are congenital but they may also occur secondary to trauma, infection, inflammation or degeneration. Most commonly, those with large cysts have been called hygromas and those with some tissue parenchyma have been called lymphangiomas.

According to the histology, Lymphangiomas have been classified into three types, Capillary lymphangioma, or lymphangioma simplex, is composed of small thin-walled lymphatics, Cavernous lymphangioma, consists of larger lymphatic channels with adventitial coats and Cystic lymphangioma or cystic hygroma, is made up of larger, macroscopic lymphatic spaces. [2]

Most of the Lymphangiomas are congenital, appears at birth within first two years of life. 75% of those occurs in the head and neck and 20% in the axilla. Cases were also reported at various other sites like chest, abdomen, groin and retroperitoneum. But these tumours are very rare in the extremities.[3]

They usually present in the extremities with a vague solitary mass. They are usually infiltrative, often separating fascial planes and tend to invest the near by vital structures i.e., nerves, muscles, and blood vessels. They are fluctuant, painless and well trans-illuminating. The skin overlying the lesion is normal.[4]

Ultrasonogram usually helps to differentiate from other cystic swellings but MRI is the diagnostic tool which shows hyperintensity on T2 and hypo intensity on T1 imaging studies.[2]

Management of Lymphangiomas are sometimes difficult due to recurrence. Many nonsurgical options were adapted in children's and also in adults which includes sclerotherapy using intralesional sirolimus, bleomycin, OK-432—a strain of group A streptococcus, ethanol, and hypertonic glucose solution. But surgical excision remains the mainstay of treatment for soft tissue lymphangiomas. However, surgical excision tends to be incomplete sometimes due to their diffuse nature and adherent to other vital structures.[5]

CONCLUSIONS:

Lymphangioma of the upper extremity in the adults is a rare entity. MRI is the diagnostic tool for the lymphatic swellings. Although various non-surgical methods are available, complete surgical excision is the treatment of choice to avoid recurrence.

REFERENCES:

[1]. Mirza, B., Ijaz, L., Saleem, M., Sharif, M., & Sheikh, A. (2010). Cystic hygroma: An overview. Journal of Cutaneous and Aesthetic Surgery, 3(3), 139. doi:10.4103/0974-2077.74488

[2] Carpenter, C. T., Pitcher Jr., J. D., Davis, B. J., Gomez, R., Schofield, T. D., & Youngberg, R. A. (1996). Cystic hygroma of the arm: a case report and review of the literature. Skeletal Radiology, 25(2), 201–204. doi:10.1007/s002560050064

[3] Rahal MJH, Abou Al Ezz MR, El Hajj RA, et al. Elbow Cystic Lymphangioma in an 8-Month-Old Boy. Case Reports in Orthopedics. 2019 ;2019:8762614. DOI: 10.1155/2019/8762614.

[4] Murase T, Tsuyuguchi Y, Doi T, Kawai H, Masada K. Lymphangioma of the upper extremity. Journal of Pediatric Orthopedics. 1992 Jan;12(1):100-105.

[5] Mirza B, Ijaz L, Iqbal S, et al. Cystic hygroma of unusual sites: report of two cases. African Journal of Paediatric Surgery : Ajps. 2011 Jan-Apr;8(1):85-88. DOI: 10.4103/0189-6725.78937.