***Case study***

# A rare case of acquired axillary cystic hygroma in an adult patient.


**ABSTRACT:**

A case of cystic hygroma was found in an adult male patient of 43 -year- age in the left axilla, which was non-tender cystic mass (57 x 40 x 49 mm) filled with haemorrhagic blood. It was successfully removed surgically without any complications. Being very rare presentation in the axilla of an adult, this case is reported.



**Keywords: Cystic hygroma, Adult, Axilla, Haemorrhage.**


## 1. INTRODUCTION

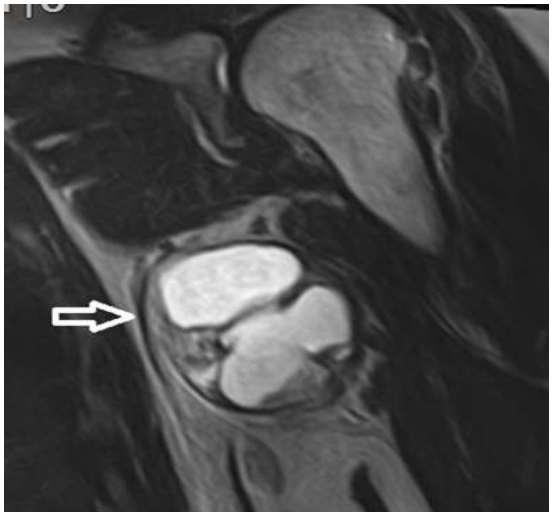
Cystic hygroma, a benign and congenital malformation of the lymphatic system, also known as lymphangioma, usually occurs in children, especially in the neck. [1-3]. Cystic hygroma in the adult is very rare and less than 150 cases of cervicofacial cystic hygroma are reported in English literature up to 2011 [2]. Hygroma means a water containing tumour. This lesion does not have a connection with the lymphatic or venous system. It may have unilocular or multilocular cystic lesions and may be of variable size. In microcystic varieties, the cyst may be less than 2 cm diameter but in macrocystic size is more than 2 cm (also known as cystic hygroma) and in mixed variety the size of cysts is variable [4,5]. Most often it is found in the cervical region of children and less frequently found in the axilla or another site. Other uncommon sites are soft tissue, orbital cavity, mediastinum, pancreas, liver, ovary, and fallopian tubes [6]. There are only five reported cases of cystic hygroma in axilla of adult patient in English literature. [7-10].
A literature searches (PUBMED, google and science direct) did not show any published report from Malaysia. In view of rare occurrence in adult especially in the axilla, this case is reported. To the best of our knowledge, this is the first reported case of cystic hygroma in the axillary region in an adult patient from Malaysia.

## 2. CASE HISTORY

A 43 -year- old man, was referred to the surgical clinic of this hospital on 7$^{th}$ July 2015 with a complaint of a mass in left axilla since 10 years which was very small, but recently in last few months, it was increasing in size and patient had problem in moving the left upper arm. The surgeon examined the case and found a cystic mass in left axilla about 60 mm x 50 mm in size. It was cystic and fixed. There was no history of trauma, and there was no loss of weight or appetite by the patient. The patient gave the history of chronic use of the deodorant spray.

The patient was referred to the radiology department for MRI of left axillary mass which revealed a well-defined oval cystic mass in left axilla measuring 57 x 40 x 49 mm. it was not attached to surrounding structure like blood vessels and muscles etc. The mass was cystic and no solid component was found in it [Figure 1]. The wall was smooth and thin and there was a fluid level

seen in the cyst. Axillary lymph nodes were not enlarged. The MRI diagnosis was a cystic hygroma with haemorrhagic blood within it.



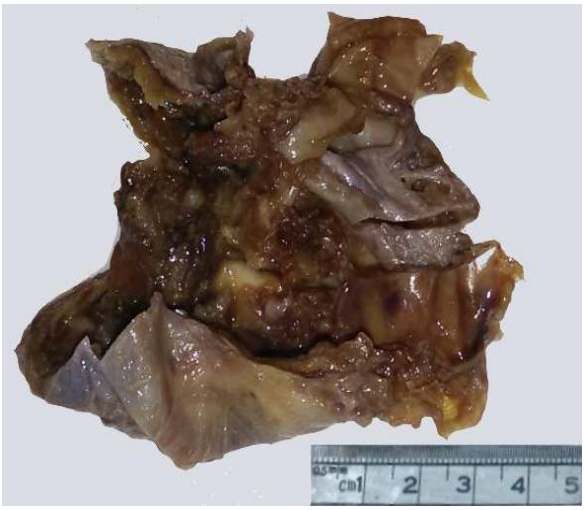
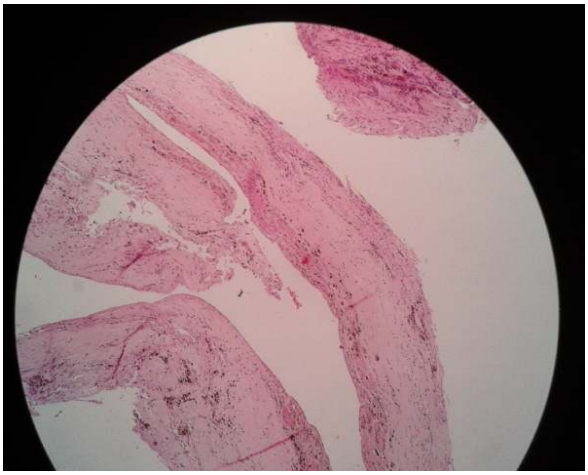


**Fig 1.** MRI of left axilla showing the wall of the cyst (large black arrow). The cyst is filled with haemorrhagic blood (white in colour within the cyst wall -- large arrow mark).

**Fig 2:** Gross appearance of the inner surface of the wall showing some blood clots (dark brown).



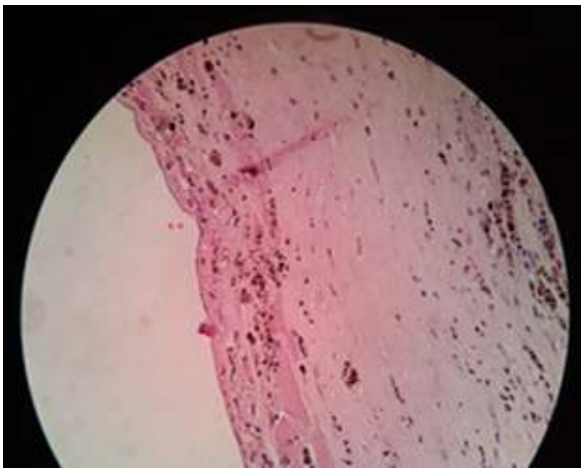


**Fig3:** Microscopic appearance of the cyst wall (H&E stain, X 100). The thin and smooth cyst wall composed fibrous connective tissue lined by flattened epithelium.

**Fig 4:** High power microscopic (H&E stain, X 400) shows flattened epithelium and scattered hemosiderin laden macrophage in the wall.

The patient was operated under general anaesthesia on 8th July 2015 and the cystic lesion was completely removed. The removed specimen was sent in formalin for histopathology.

The pathologist noted that the outer wall was intact, smooth, and brownish black in colour and size of cut opened specimen was 93x83x10 mm as seen in the picture. The lumen of the cyst was unilocular and bit irregular without any papillary structures. The wall was thin and smooth. There were some blood clots within the cyst [Figure 2].

Few random areas were selected from the gross specimen and processed for microscopic examination. Microscopic features were characterised by a thin and smooth wall, which was composed of fibrous connective tissue lined by very thin and flatten epithelium. Few hemosiderin-laden macrophages were seen in the wall. There were no any papillary structures or any malignant changes in cyst wall [figure 3]. Histopathological diagnosis was cystic hygroma with some haemorrhage in the cyst.

Post-operative stay in the hospital was uneventful. The patient was discharged from hospital on the third postoperative day and was followed up at two monthly intervals. There was no problem found during follow-up visits. The operated site showed healed scar without any recurrence in the left axilla (disease free for four months)

## 3. DISCUSSION

Cystic hygroma (also known as cystic lymphangioma) is a congenital lesion usually seen in children under the age of 2 years. It is a malformation of lymphatics. It may occur at various places in the body but usually in the neck and uncommonly in another part of body of the children. Cystic hygroma is an uncommon lesion in adult and very few cases are reported in the literature. [2,4]. The cystic hygroma is a benign and painless proliferation of lymphatics and occurs with no connection between lymphatics and venous system.

The predisposing factors that are responsible for the development of cystic hygroma in the adult are an infection, trauma, being as a growth or iatrogenic stimuli etc. [1]. Surgical excision is the main treatment and other treatment includes injection of bleomycin, a sclerosing agent and laser surgery. [1,3,5]

A case of large, fluctuant and non-tender cystic hygroma (10x12x17 cm) was reported by Gelal et al in a 24-year-old, seven months' pregnant woman in left axilla, situated between anterior and posterior axillary line [7].

Güner et al reported a case of axillary cystic hygroma in 83 -year- old male with the history of discomfort during the inspiration phase of breathing for the past four months. It was a painless and mobile right axillary mass. They did not find any recurrence during five months' follow-up period [8].

Michail et al reported a cystic hygroma in a female patient which developed rapidly in the axillary region in the absence of any predisposing factor [9].

McCaffreya at el reported an another case of cystic hygroma in a 58 -year- old male in right upper flank extending up to axilla which was non-tender and large (20x12x7 cm). It was multiseptate lesion and there was no any recurrence found on follow-up after one year of surgery [10].

In our case, there was no history of any predisposing factors. The presence of blood in the removed cyst suggests the possibility of minor trauma before coming to the hospital for the check-up. The size of cystic hygroma of this case was medium size when compared to other two cases.

The most recently, Copley at al reported one case of spontaneous cystic hygroma in the axilla of a 59-year-old female, which was managed by ultrasound guided aspiration but was unsuccessful due to recurrence and then was removed successfully by total excision surgically.

Detailed imaging procedures like ultrasound, MRI and CT scan will help the diagnosis preoperatively and histopathological examination of surgically removed specimen will confirm the diagnosis of cystic hygroma.

## 4. CONCLUSION

Cases of cystic hygroma in adult male especially in the axillary region is a rare occurrence and becomes the sixth reported case.

## ETHICAL APROVAL:

It is not applicable.

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