Primary Cervical Lymphocele: A Rare Diagnosis of Supraclavicular Mass

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***Abstract*- Primary cervical Lymphoceles are rare lesions, with very few cases reported in literature. Whereas, acquired cervical lymphoceles have been reported after head and neck surgery or trauma. We report a case of a 76-year-old elderly female, who was referred with a 5-year history of spontaneous painless swelling left side of the neck, with pronounced increase in size in the past 2 months, measuring around 8x7 cm. There were no history of head and neck surgery and trauma. FNAC revealed matured lymphocytes with cystic macrophages in background of proteinaceous material suggestive of benign cystic lymphangioma. CECT neck showed sharply defined non-enhancing cystic mass with no obvious perceptible wall, occupying the dead space behind ipsilateral sternocleidomastoid muscle in left supraclavicular fossa. Surgical excision of lymphocele was done and HPE confirmed the diagnosis of Cystic Lymphangioma. Primary cervical lymphoceles should be considered as extremely rare differential diagnosis of left supraclavicular masses in adults. The classical triad of history, clinical examinations and investigations are employed for diagnosis. Surgical excision of the cyst is advocated as the definitive treatment and to confirm the diagnosis by HPE, in order to prevent complications like spontaneous or traumatic rupture of the cyst.**

***Index Terms*: Cervical lymphocele, supraclavicular fossa, cystic lymphangioma.**

I. INTRODUCTION

Primary cervical lymphoceles are extremely rare lesions with very few cases reported in literature. Review of literature yielded only 15 reported cases, patients ranging from 28 to 68 years of age with no gender preponderance [1]. Acquired cervical lymphoceles have been reported after head and neck surgery or trauma. We report a case of an elderly female with spontaneous left supraclavicular cystic mass. USG guided FNAC and CECT neck aided in the diagnosis and was managed successfully by surgical excision.

II. CASE REPORT

A 76-year-old female was referred with a 5-year history of spontaneous swelling on left side of the neck. There was pronounced increase in the size of the swelling for the last 2 months due to which she experienced discomfort in the neck, heaviness and restricted neck movement. She had no history of smoking cigarettes, consumption of alcohol and prior neck surgeries or trauma.

Physical examination showed non- tender, slightly compressible, approx. 8x7cm, soft-cystic mass in the left supraclavicular region.

Hematological and biochemical parameters were all within normal limits. FNAC revealed matured lymphocytes with cystic macrophages in proteinaceous background. CECT neck showed sharply defined non-enhancing cystic mass with no obvious perceptible wall, occupying the dead space behind ipsilateral sternocleidomastoid muscle in the left supraclavicular fossa.

Fig.1 Preoperative picture of lymphocele

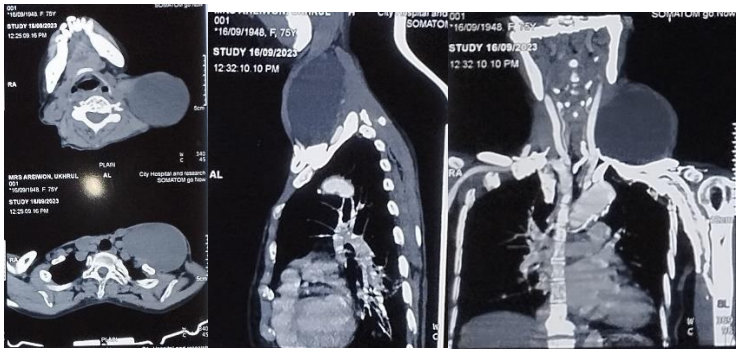

Fig.2 CT scan of left cervical lymphocele

Under General anesthesia, neck was explored through a low, horizontal skin- crease incision. Well-encapsulated cyst was found beneath sternocleidomastoid muscle with little adherence to the surrounding structures. The cyst was dissected on all sides, separated from structures like IJV and common carotid artery. EJV and anterior JV was ligated and cut. The cyst was carefully removed in toto from the surgical field. Haemostasis was achieved and wound closed in layers. Histopathological examination showed focal areas lined by endothelium and cyst wall showing lymphoid follicles with germinal centers confirming the diagnosis as Lymphocele.

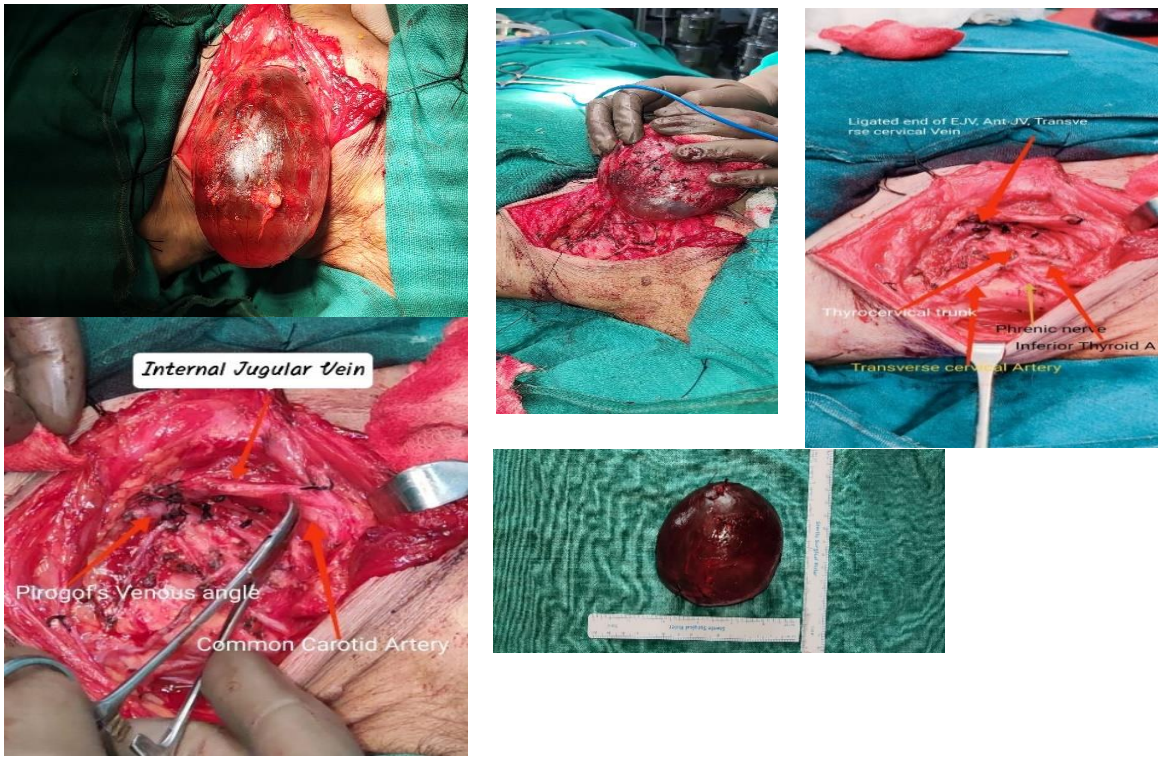

Fig 3. Intraoperative pictures

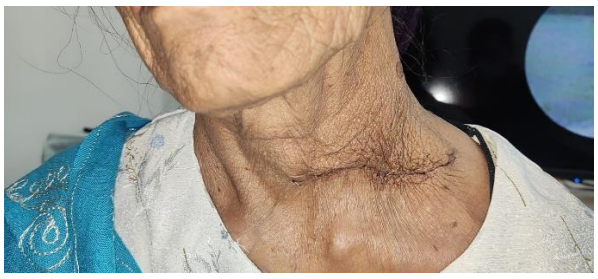

Fig 4. Postoperative appearance

III. DISCUSSION

A lymphocele is a lymph filled benign tumor composed of dilated cystic spaces lined by endothelial cells, separated by an intervening connective tissue stroma. In 1965, Barlow and Grace describe the first case of primary non congenital spontaneous cervical lymphocele [1,2]. Steinberger also reported 2 cases of primary congenital supraclavicular thoracic duct cyst presenting in adults [3].

Three school of thoughts with respect to lymphocele arising de novo: congenital weakness in the thoracic duct cyst wall, secondary to degenerative changes in the thoracic duct wall, secondary to degenerative changes in the cyst wall and obstruction to lymphatic drainage in angle formed by IJV and subclavian vein [4,5].

In literature, vast majority of primary cervical lymphoceles are asymptomatic at the time of presentation. There were also reports of symptoms relating to compression of adjacent structures like dysphagia, odynophagia, cough, dyspnoea, etc. [6,7]. In our case, elderly female reported with a 5year history of spontaneous painless swelling in left supraclavicular region, with pronounced increase in size in the last 2 months, producing symptoms of heaviness and mild discomfort on movement of neck.

Differential diagnosis for a supraclavicular cystic mass includes thymic cyst, parathyroid cyst, esophageal duplication cyst, branchial cleft cyst, nerve sheath tumor, carotid or subclavian artery pseudoaneurysm, etc.

Preoperative evaluation of history and complete physical examination usually reveals a fluctuant, painless to mild discomfort, cystic mass arising from left supraclavicular fossa. Valsalva maneuver may increase the size of the swelling. Many authors considered lymphangiography as gold standard imaging test for determining lymphatic vessel anatomy and lymph flow [3,8,9]. Availability of high-resolution imaging and FNAC makes lymphangiography not usually necessary. FNAC reports in our case showed cystic macrophages in proteinaceous background suggestive of cervical lymphocele. CT scan demonstrates cystic nature of the lesion, defining boundaries and its relationship with other neighboring structures.

Treatment approaches vary by virtue of its size and symptoms, ranging from FNAC with sclerosant to surgical excision of the lymphocele. Zätterström et al. reported a case of spontaneous regression treated with observation in a patient reported with painless left supraclavicular mass [10]. There were cases reported where repeated aspirations in patients was carried out, but cyst continued to refill with persistence of other symptoms, therefore surgical intervention was done [11,12]. Seelig et al. did sclerotherapy using povidone iodine on a recurrent left supraclavicular lymphocele which resulted in complete resolution and no further recurrence [13]. Surgical intervention had been performed in majority of cases. We have performed complete surgical excision of the cyst. There was no intra- or post operative complications and no recurrence.

IV. CONCLUSION

Primary cervical lymphoceles should be considered as extremely rare differential diagnosis of left supraclavicular masses in adults. The classical triad of history, clinical examinations and investigations are employed for diagnosis. Surgical excision of the cyst is advocated as the definitive treatment and to confirm the diagnosis by HPE, in order to prevent complications like spontaneous or traumatic rupture of the cyst

REFERENCES:

1. Hekiert A, Newman J, Sargent R, Weinstein G. Spontaneous cervical lymphocele. Head Neck. 2007 Jan;29(1):77-80. doi: 10.1002/hed.20484. PMID: 17103412.
2. Ray J, Braithwaite D, Patel PJ. Spontaneous thoracic duct cyst. Eur Arch Otorhinolaryngol. 2003 May;260(5):280-2. doi: 10.1007/s00405-002-0484-8. Epub 2002 Nov 22. PMID: 12750920.
3. Steinberg I, Watson RC. Lymphangiographic and angiographic diagnosis of persistent jugular lymph sac: report of a case. N Engl J Med 1966;275:1471–1474.
4. Wang YA, Zhang ZY, Zheng JW, Ye WM, Wang LZ, Zhu HG. Spontaneous thoracic duct cyst presenting as a left supraclavicular mass - report of a case and review of literature. Phlebology. 2009 Apr;24(2):82-4. doi: 10.1258/phleb.2008.008056. PMID: 19299277.
5. Mattila PS, Tarkkanen J, Mattila S. Thoracic duct cyst: a case report and review of 29 cases. Ann Otol Rhinol Laryngol 1999;108:505–508.
6. Barlow D, Gracey L. Cystic dilation of the thoracic duct. Br J Clin Pract 1965;19:101–1026.
7. Brauchle RW, Risin S, Ghorbani RP, Pereira KD. Cervical thoracic duct cyst: a case report and review of the literature. Arch Otolaryngol Head Neck Surg 2003;129:581–583.

8. Kolbenstvedt A, Aanesen J. Cystic dilation of the thoracic duct presenting as a supraclavicular mass. Br J Radiol 1986;59:1228–1229.
9. Gomez E, Tejerina E, Martorell V, Nistal M. Thoracic duct cyst presenting as an hour-glass shaped mass in the left supraclavicular area: case report. Acta Otorhinolaryngol Belg 2001;55:223–225.
10. Zätterström U, Aanesen JP, Kolbenstvedt A. Case report: Spontaneous regression of a supraclavicular thoracic duct cyst: case report with a follow-up of 25 years. Br J Radiol. 2009 Aug; 82(980):e148–50.
11. Van den Bussche D, Audenaert E, De Gendt G, Proot L, Devriendt H. Conservative treatment of a cervical thoracic duct cyst: a case report. Acta Chir Belg. 2007 Jan-Feb; 107(1): 67–9.
12. Ceylan A, Akçam T, Karatas E, Celenk F. Neck swelling following a vigorous neck massage. Diagnosis: cervical lymphocele. Neth J Med. 2007 Jun; 65(6): 219, 221.
13. Seelig MH, Klingler PJ, Oldenburg WA. Treatment of a postoperative cervical chylous lymphocele by percutaneous sclerosing with povidone-iodine. J Vasc Surg. 1998 Jun; 27(6): 1148–51.