Case Report

Rare case of Left Ventricular Myxoma presented with right sided pleural effusion

Preetam N Wasnik[1], Satyajit Singh[2], Md Sabah Siddiqui[3], Keshav Nagpure[1]

ABSTRACT

Left ventricular myxoma is an extremely rare entity and account for 2.5% of all cardiac myxoma cases. A Myxomatous gelatinous mass present inside left ventricle s/o left ventricular myxoma was diagnosed by Transthoracic two-dimensional echocardiographic imaging in a 69-year-old female with pleural effusion presented with chest pain, shortness of breath and cough since 1 month.

Introduction :

Primary cardiac tumours remain a rare subgroup of malignancies with an incidence between 0.0017 and 0.29 percent in autopsy series[1,2]. Cardiac myxoma is the most common primary cardiac tumour[2,3] Myxomas are more frequent between the third and sixth decades of life1.The majority of myxomas occur in the atria with only 5-10% identified in either the left or right ventricle[4].

Case Report :

69 years old female patient k/c of Type 2 DM was admitted with chest pain, shortness of breath and cough since 1 month. She had tachycardia and tachypnoea. Cardiovascular examination revealed no abnormality. On RS examination features s/o pleural effusion were present on right side. PA and neurology examination was unremarcable. Laboratory examination showed Haemoglobin - 11.5 gm%. a total leukocyte count of 13,200 cells/mm3 with normal DLC. ESR was 26. Her LFT revealed S bilirubin 1.45mg/dl , liver enzymes were normal and KFT was normal except mild hypokalemia. Her HbA1C was 8.6. ECG showed normal sinus rhythm with multiple VPC and no other abnormality. X-ray chest revealed right sided pleural effusion. Pleural fluid was slightly turbidon naked eye examination. Total cells were 700,/cumm with lymphocyte 60% neutrophil 40%. Pleural fluid glucose was 262 mg/dl ,pleural fluid protein 2.67 mg/dl. AFB was not seen. ADA was negative. Pleural fluid cytology for malignant cell was negative. She was treated with Inj. Cefotaxime, inj. ranitidine, Beta blocker, multivitamins, insulin and syrup kesol. As patient's condition was worsening, she was referred for echocardiography evaluation.

Transthoracic 2D echocardiography revealed myxomatous gelatinous mass present inside LV suggestive of left ventricular myxoma. Mild pericardial effusion was also noted. The cause of pleural effusion may be reactive in this case. Cardio-thorasic surgeon's opinion was taken. As per his advice cardiac MRI was planned, but because of finantial issues relatives denied any further investigation and they took discharge against medical advise.

Discussion :

Primary cardiac tumours remain a rare subgroup of malignancies with an incidence between 0.0017 and 0.29 percent in autopsy series.[1,2] Myxoma is the most prevalent heart tumor and is the most common benign tumor of the heart. A small number (6%) of myxomas are equally split between the left and right ventricles (3%) each[5]. Only 3% - 4% of myxomas are detected in the left ventricle[6].

Myxomas occur in all age groups but are particularly frequent between the third and sixth decades of life[7]. In a series of 66 sporadic myxomas, the female-to-male ratio was 2.7:1[8] and 3:1 in one series[9]. However, female sex predominance is less pronounced in familial myxomas. The precise rate

[1]Assistant Professor, [3]Associate Professor, Dept. of Medicine
[2]Assistant Professor, Department of Cardiology, AIIMS, Raipur

Address for Correspondence -
Dr. Preetam N. Wasnik
E-mail : pnwasnik@aiimsraipur.edu.in

Received on 18th February 2018 Accepted on 21st June 2018

of growth of cardiac myxoma is unknown, although it is believed to be reasonably fast, an average rate of 0.15 cm per month.[10] Tumors can range in size from 1-15 cm in diameter, although most measure approximately 5-6 cm across. Myxomas are, indeed, neoplastic and the impetus for this neoplastic transformation is unclear. Although genetic factors play a role in myxoma syndromes, they do not appear to offer a consistent explanation in sporadic cases.

The clinical presentation of patients with myxoma can be quite variable. Because of nonspecific symptoms, early diagnosis of the myxoma may be a challenge. Cardiac myxomas have no typical presentation. Typically, patients are asymptomatic or present with nonspecific signs and symptoms. Symptoms of obstruction, embolic and systemic manifestations are components of the classical triad, but rarely all are present. However, at least one of the triad symptoms is present. Systemic reaction due to the products of the degeneration of the tumor leading to fever, weight loss, leucocytosis which may occur especially in the early stage of the illness. Vague constitutional symptoms are due to an inflammatory response that can be associated to many diseases. These symptoms are rather non specific and cardiac myxomas are often misdiagnosed[11]. This patient presented with h/o chest pain, shortness of breath and cough since 1 month. On investigation patient found to have right sided pleural effusion. The cause of effusion may be reactive in this case.

Two-dimensional echocardiography is the diagnostic procedure of choice in revealing myxomas[12]. In this patient, 2D echocardiography was s/o a myxomatous gelatinous mass present inside left ventricle s/o left ventricular myxoma. CT & MRI provide sectional views of structures within the chest without any superposition in any plane. They can also distinguish between solid, liquid, fat, blood within the tumour depending on the density / intensity on the CT / MRI.

The treatment of choice is surgical excision, which is curative. Cardiac surgery should be performed promptly after diagnosis in order to prevent

Figure 1 : **LV myxoma of size 30 × 10 mm attached to interventricular septum**

complications associated with the tumour.[1,13] If a heart valve has been damaged by the tumour or damaged during the excision of the tumour, valvuloplasty or valve replacement should be carried out at the same time[1,14]. Intra-operative mortality rate is low and the short and long term prognosis is excellent.

Conclusion :

A Myxomatous gelatinous mass present inside left ventricle s/o left ventricular myxoma was diagnosed by Transthoracic two dimensional echocardiographic imaging in a 69 year old female presented with h/o chest pain, shortness of breath and cough since 1 month during evaluation of plural effusion. This is rare presentation of ventricular myxoma.

References :

1. Reynen K.: Cardiac myxomas. NEJM 1995; 333: pp. 1610-1617.
2. Wold LE., and Lie JT.: Cardiac myxomas: a clinicopathologic profile. Am J Pathol 1980; 101: pp. 219-240.
3. Amano J, Kono T, Wada Y, Zhang T, Koide N, Fujimori M, and Ito K-i.: Cardiac myxoma: its origin and tumor characteristics. Ann Thorac Cardiovasc Surg 2003; 9: pp. 215-221.
4. McAllister Jr HA, Fenoglio Jr JJ. Tumors of the cardiovascular system. Atlas of tumor pathology. 2nd series. Fascicle 15. Washington, DC: Armed Forces Institute of Pathology; 1978. p. 1-20.
5. Yoshikai M., Kamohara K., Fumoto H. and Kawasaki H. (2003) Left Ventricular Myxoma Originating from the Papillary Muscle. Journal of Heart Valve Diseases, 12, 177-179.

6. Silverman NA. (1980) Primary Cardiac Tumors. Annals of Surgery, 191, 127-138.
7. Griffiths GC. (1965) A Review of Primary Tumors of the Heart. Progress in Cardiovascular Diseases, 7, 465-479.
8. Zheng JJ., Geng XG., Wang HC., YanY and Wang HY. (2013) Clinical and Histopathological Analysis of 66 ,Cases with Cardiac Myxoma. Asian Pacific Journal of Cancer, Prevention, 14, 1743-1746.
9. Yoon DH. and Roberts, W. (2002) Sex Distribution in Cardiac Myxomas. American Journal of Cardiology, 90,563-565.
10. Malekzadeh S. and Robert WC (1989) Growth Rate of Left Atrial Myxoma. American Journal of Cardiology, 64,1075-1076.
11. Attum AA, Johnson GS., Masri Z., Girardet R. and Lansing AM. (1987) Malignant Clinical Behavior of Cardiac Myxomas and "Myxoid Imitators". Annals of Thoracic Surgery, 44, 217-222.
12. Colucci WS. and Schoen FJ. (2001) Primary Tumors of the Heart, Braunwald Heart. Disease, 6th Edition, 1817.
13. Goodwin JF.: Diagnosis of left atrial myxoma. Lancet 1963;1: pp. 464-468
14. Silverman J, Olwin JS., and Graettinger JS.: Cardiac myxomas with systemic Embolisation: review of the literature and report of a case. Circulation 1962; 26: pp. 99-103