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Clinical Image

Fever of Unknown Origin in an 18-year-old Boy

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Abstract:

Cardiac myxoma is a rare cause of fever of unknown origin. Typically, it presents with one or more of the triad namely constitutional, obstructive or embolic phenomenon. Rapid detection and early surgical resection is the only effective modality of treatment to prevent debilitating complications and mortality. Herein, we showcased a case presenting to us with fever and weight loss. High index of suspicion and early transthoracic echocardiography is needed to avoid delayed diagnosis and unnecessary tests.

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An 18-year-old boy, hailing from Manikganj, was admitted to our department with the complaints of high grade (105ÚF) intermittent fever, dry cough, headache, vomiting and myalgia for three months. Furthermore, he complained of weight loss (6 kgs) for the same duration associated with fluctuating bipedal edema, intermittent urinary incontinence and recurrent syncope. He is comfortable at rest but ordinary physical activity results in fatigue and palpitation (NYHA Class II). He first went to local physician and was prescribed Nitrofurantoin SR 100 mg, twice daily for seven days but his condition did not improve. After admission, we found him to be alert, conversant with slight slurred speech, moderately anemic, dehydrated, clubbing involving his both upper limb, vitals were within normal limit. Precordium revealed visible, thrusting apex beat in left 5th intercostal space, medial to midclavicular line and a loud first heart sound with a systolic murmur in mitral area varying with posture. His muscle power was four/five in all four limbs with exaggerated jerks with ankle and patellar clonus. Planter response was equivocal bilaterally with no sensory level. All other system examinations including fundus were normal. His lab parameters and baseline imaging are showed in **Table-1.** After that we did a Trans-thoracic 2D M-Mode echo **(Fig-1)** which was suggestive of an atrial myxoma, attached to the left atrial side of the septum. Which is irregular shaped, of mixed density, mobile and inhomogeneous. Doppler echocardiography was also done and it showed mild MR, mild TR and PASP- 32mmHg. Due to financial constraint patient could not do neuroimaging. He was referred to the cardio-thoracic surgeon for excision of left atrial myxoma under cardiopulmonary bypass. It was done successfully 3 weeks later. He is stable to this date with no complications.

Myxomas represent only 1% of PUO[1], so we often tend to defer it's exclusion. Release of IL-6 by the tumor is the possible reason behind these constitutional symptoms[2]. Early diagnosis and immediate surgery is the only modality of treatment to avoid neurological and embolic complication[3]. Recurrence after surgery is 3% for sporadic cases like this[4] and post-operative complication (17%) mainly includes infection and bleeding[5].

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Table - 1 : *Laboratory profile of the patient*

Test	Before Admission	After Admission	Normal Range	Unit
Haemoglobin	9.2	6	13-17	g/dl
ESR	125	70	0-10	mm in 1st hour
Hematocrit	27.7	20.9	40-50	%
Total WBC Count	15.4k	13k	4-11	X 10^9/L
Neutrophil	82	77	40-80	%
Lymphocyte	13	15	20-40	
Total Platelet Count	304k	380	150-450	/L
PBF		Microcytic hypochromic anemia with neutrophilic leukocytosis.		
Urine R/M/E	Trace Albuminuria	NAD		N/A
CRP	209.7	99.9	<10	mg/L
S. Creatinine	1.0	1.0	0.74-1.35	mg/dl
SGPT	32		Upto 45	U/L
S. Na/ K/ Cl		130/ 4.4/ 96	135-145/3.5-4.5/96-106	mmol/L
S. Albumin		2.5	3.4-5.4	g/dl
Blood C/S(IE Protocol)		Negative	N/A	N/A
LDH		300	140-280	U/L
Coomb's Test(Direct/Indirect)		Negative	N/A	N/A
Chest X- Ray P/A view	Suggestive of cardiomegaly with straightening of left border			
USG of W/A	Suggestive of mild splenomegaly (13cm)			

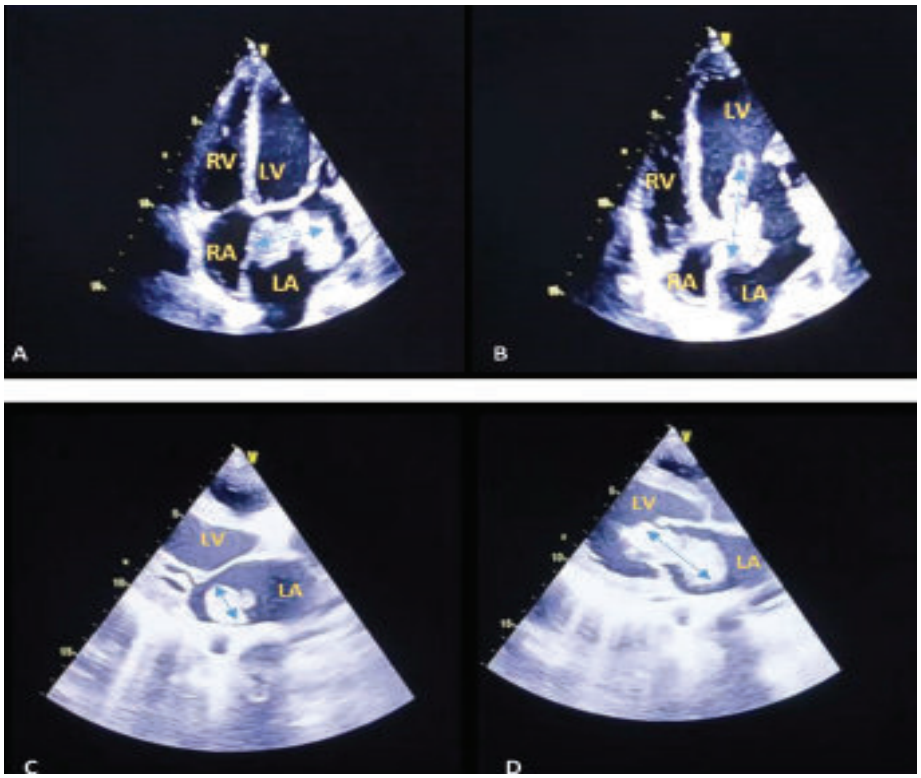

Fig.-1: *Showing 2D M-mode echo (A: Apical view, B: Parasternal long axis view) showing an atrial myxoma (65 x 23 mm in size) which protrudes towards left ventricle through the mitral valve during diastole. LA, LV was dilated. Biventricular function was normal with no RWMA.*

Conflict of interest

The authors declare that they have no conflict of interest.

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