

**ACUTE PAINFUL PARAPLEGIA -AN UNUSUAL PRESENTATION OF ATRIAL MYXOMA****Rohit Mehan<sup>1\*</sup>, Saurabh Bawa<sup>1</sup>, R. C. Negi<sup>2</sup>, Akhil Katna<sup>3</sup>, B. D. Negi<sup>3</sup>, Prem Machhan<sup>4</sup> and Jatinder Mokta<sup>4</sup>**<sup>1</sup>Junior Residents, Department of Medicine, Indira Gandhi Medical College, Shimla (H.P).<sup>2</sup>Associate Professor, Department of Medicine, Indira Gandhi Medical College, Shimla (H.P).<sup>3</sup>Senior Residents, Department of Medicine, Indira Gandhi Medical College, Shimla (H.P).<sup>4</sup>Professor, Department of Medicine, Indira Gandhi Medical College, Shimla (H.P).**\*Corresponding Author: Rohit Mehan**

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**ABSTRACT**

A 32 years female presented with acute painful paraplegia. Embolization to lower limb was responsible for pain and weakness. Arterial doppler and CT angiography revealed thrombus. Embolectomy restored the circulation and patient improved. 2D echo revealed LA myxoma responsible for embolization.

**KEYWORDS:** Myxoma, Emboli, Embolectomy, Ischemia.**INTRODUCTION**

Cardiac tumors are rare disorders of heart and atrial myxoma is the most common variant.<sup>[1]</sup> The median age of diagnosis is 50 years and it usually presents at 3<sup>rd</sup> to 6<sup>th</sup> decade of life, predominantly seen in females with female to male ratio 2:1.<sup>[2]</sup> Clinical features are usually dependent on location of tumor, with non-specific constitutional symptoms and symptoms due to embolization involving the particular vascular territory. Cardiac manifestations of patients are heart failure, dyspnea on exertion, orthopnea and pulmonary edema. The left sided myxoma present with systemic embolization whereas right sided myxomas present with pulmonary embolism.<sup>[3]</sup> The cause of emboli may be either fragment of the tumor or thrombus formed on the surface of the myxoma.<sup>[3]</sup> Thromboembolic infarcts from tumor embolization is the most common extracardiac manifestation. Patient presenting as bilateral acute lower limb ischemia is rarely reported in literature. If diagnosis is missed, it may lead to devastating disability life. So, we thought to highlight this case.

**CASE**

A 32 years female presented to the emergency department with complaint of weakness and pain in bilateral lower limbs. The weakness was sudden in onset, which was noticed when she was in washroom and she could not able to get up and come back to room without assistance. The pain was sudden in onset, severe in nature, unbearable more in right than left lower limb. She was not able to perceive the sensation below umbilicus. She could not pass urine and stool after the onset of the weakness. There was no preceding history of trauma,

pain in lower back, fever, or band like sensation in the back. On examination, she was conscious and in agony, pulse -80 /mi., regular, BP-150/90 mmHg, RR-20/ min. On systemic examination, nervous system-tone was increased in bilateral lower limbs. Power in all joints in lower limbs was 0/5, ankle reflex was present and knee reflex could not elicit due to pain and Planters were mute bilateral. Sensory examination – touch, pain and temperature sensations were absent below umbilicus. Cardiovascular, respiratory and gastrointestinal systems examination were unremarkable. On the basis of history and examination, we kept the possibility of acute transverse myelitis and MRI spine and methylprednisolone administration was planned. Next day, history and examination were reviewed and revealed bluish discoloration in right foot associated with severe pain, tenderness and swelling in bilateral lower limbs more in right than left. Peripheral pulses-ATA, PTA, and DPA were absent bilateral urgent USG arterial doppler study revealed monophasic flow in bilateral limb arteries and its branches. CT angiography of bilateral lower limbs and abdominal aorta revealed thrombus involving infrarenal aorta, extending into bilateral CIA with marked luminal narrowing at these levels (Fig.1). Right popliteal artery, ATA, PTA and peroneal artery were non opacified with distally attenuated left ATA and PTA (Fig: 2). Diagnosis of acute bilateral limb ischemia secondary to arterial embolus of unknown origin was established.

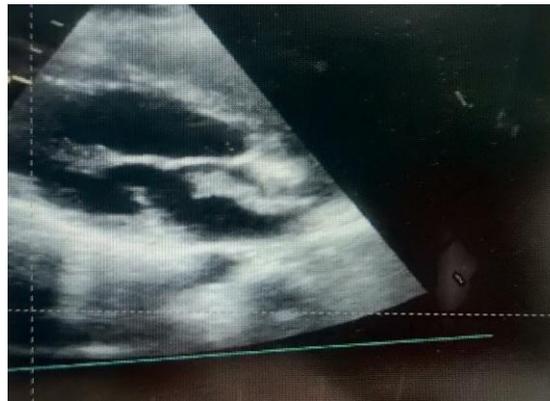
Patient was started on heparin and taken for emergency intervention. Bilateral common iliac embolectomy was performed along with right lower limb fasciotomy.

Embolus sent for HPE. Keeping in view of CT angiographic findings, cardioembolic source was thought and 2D echo was done, which revealed LA myxoma arising from interatrial septum (3.8\*1 cm<sup>2</sup>), penetrating into mitral valve with no significant my obstruction(fig.2). Excision of left atrial myxoma with closure of ASD was done. HPE examination of emboli from B/L CIA, revealed features consistent with cardiac myxoma. Histopathology report of cardiac mass also revealed myxoma (Fig.) Lab.results-Hb-12 gm, TLC-

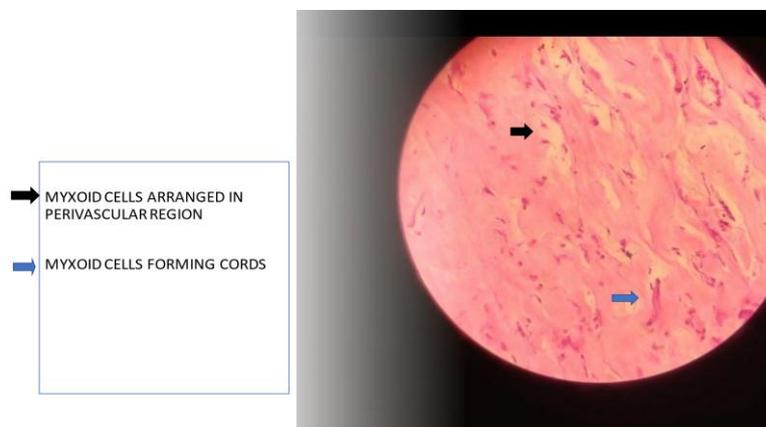
16000/mm<sup>3</sup>, ESR-80, CRP>65, B. urea-41, s.cr.-1.07, S. Na-137 mmol/L, K-3.79 mmol/L, ALT-28, AST-35, ALP-95. X-ray chest and ECG were normal. Patient was started on Injection piperacillin tazobactam, aspirin and rivaroxaban. In the recovery room, the patient had palpable peripheral pulses in both legs. Fasciotomy and wound debridement with excision of necrosed muscle right leg was done and patient was discharged with tab rivaroxaban, aspirin and metoprolol



**Fig. 1:** CTA abdominal Aorta and Lower limbs showing filling defect in bilateral CIA and Abrupt cutoff below right popliteal artery with distal attenuation in left lower limb vessels.



**Fig. 2:** 2DECHO showing mass in left atrium arising from interatrial septum (3.8\*1cm<sup>2</sup>) extending in to mitral valve.



**Fig. 3:** Histopathology of mass with hematoxylin and eosin stain showing typical features of myxoma with spindle shaped lepidic cells arranged in perivascular fashion.

## DISCUSSION

Cardiac myxomas are the most common benign intracardiac tumors and can originate from any chamber within the heart. However, left atrial myxoma typically along the interatrial septum, account for the majority of cases.<sup>[4]</sup> Clinical presentations of cardiac myxomas are highly variable. Roughly 20% of myxomas remain asymptomatic and are found incidentally on imaging.<sup>[5]</sup> Typical presentations of cardiac myxomas include cardiac obstruction, constitutional symptoms such as fever and fatigue, and embolization. Embolism causing stroke, limb ischemia, visceral ischemia, and even myocardial infarcts have been reported.<sup>[4,5]</sup> Our case presented with pain and weakness bilateral lower limbs with loss of sensation below umbilicus and of bladder and bowel function. To establish clinical diagnosis was challenging. There was no prior history of any illness preceding to this event. Pain and weakness suggest ischemic event and simple palpation of peripheral pulses can give clue to the clinical possibility. Embolization and consequent ischemia is emergency and if we miss the diagnosis, it may lead to devastating state. USG arterial doppler and CT angiography will reveal the site of obstruction of vessel, by detached atrial myxoma or fragments or thrombus. Like in the presenting case bluish of discoloration of skin and non-palpable peripheral pulses (ATA, PTA, DPA), were clue to suspicion of ischemia. A study revealed 74% of cardiac myxomas are associated with raised inflammatory markers, ESR and CRP,<sup>[6]</sup> as in presenting case, ESR and CRP were elevated. Among earlier reports of myxoma embolization, Carter *et al.*,<sup>[7]</sup> described a case of bilateral acute limb ischemia that was treated with aortic embolectomy. Myxomatous tissue was seen in the retrieved embolus. Our case also presented with acute bilateral limb ischemia and HPE of retrieved tissue from embolectomy was consistent with myxoma.

## CONCLUSION

Atrial myxoma present with non-specific to life threatening complications. So, familiarity with presentation of cardiac myxoma can anticipate the prompt diagnosis and management. Embolization is a devastating complication of myxoma.

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