Atrial Myxoma associated stroke

case presentation of elderly women with atrial myxoma and stroke, best management literature reviews.

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ABSTRACT

Aim
To determine the best treatment and association between patients has had atrial myxoma excision and postoperative cerebral infarction.
Method
We present a unique case of 81 years independent lady who was treated for incidental left atrial myxoma. We resprosectively analysed best treatment compares to current available data by using a web search includes Medscape, Athens library search engine and updates. We use keywords of (ischaemic stroke, myxoma) and (treatment of myxoma and stroke), (atrial fibrillation and myxoma).
Results
There were 59 articles and case report collectively. First case reported back to 1957 demonstrated the important of surgical treatment. It can present with arrhythmia such as late onset AF postoperatively, most common neurological ischemic presentation hypothesia, hemiparesis and facial paraesthesia due to middle cerebra artery occlusion.
Conclusion
There were no clear guideline to best treatment, however, Atrial Myxoma treated of all time with surgical removal. Long term anticoagulation was not recommended postoperative, but anticoagulation can be considered for persisted atrial fibrillation.

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INTRODUCTION

A **cardiac myxoma** is a tumour that affects the heart. It's the most common noncancerous primary cardiac tumour. Myxomas vary in size. Some are as small as 1 centimetre in diameter. Others can be as large as 15 centimetre. **About 74% of all myxomas form in the left atrium.** About 18% form in the right atrium.The rest (8%) form in your ventricles (Yuan et al 2015). (Photo) Myxomas **usually affect people aged 30 to 60** and more common among women compared with men.
It is mostly sporadic , some familial (AD) or part of syndrome : namely Carney's complex usually diagnosed in early 20s. They're more likely to be men. CC spotty skin pigmentations, endocrine over activities and schwannomas. *NAME* syndrome :Navi, atrial Myxoma myxoid neurofibroma and Ephelides and LAMB syndrome: Lentigines, atrial myxoma and blue Navi (Sharma et al 2019).

Cardiac Myxoma affects fewer **than 1 in 2,000 people**. The Main presentation are **embolization** to the central nervous system- transient ischemic attack(83%), Stroke-multiple strokes(43%), or seizure (12%). (O'Rourke et al 2003).
Common investigation are transthoracic echo can usually show a myxoma. Other are Cardiac MRI and Cardiac CT scans.
Conventional treatment is surgical removal by median sternotomy.
Mini thoracotomy with robotically assisted surgery has been reported, resulting in a shorter length of hospital stay.

There in no difference in the quality of life between the two strategies (Yuan et al 2015).

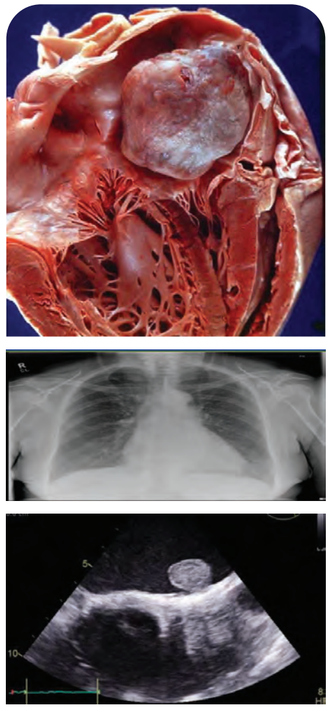

Figure 1. ECHO pre-op

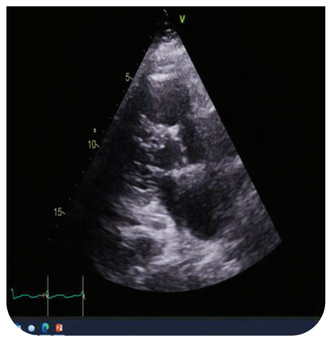

Figure 2. ECH postop

CASE REPORT

81 years old who was presented for popliteal artery occlusion routine investigation in 2022.
Admitted on the May 2022. Her ECHO has showed incidental left atrial myxoma (1.81CM*1.67CM). LVEF>55% (Figure 1). She is otherwise independent and has no past medical history. She has been admitted for urgent Intervention. Her base line investigation include her blood and chest X ray was normal.(See side).

However, Her ECG has shown atrial fibrillation that why she was started anticoagulation and Bisoprolol.
She went for removal of atrial myxoma on 2022 (myxoma excision) and **left atrial appendage closure**. Her post operative ECHO has showed complete resolution (Figure 2) .

Post operatively, she has developed left side weakness. Her CT head (Figure 3) showed low attenuation within the superior Rt Frontal Lobe. She was treated for ischemic stroke and atrial fibrillation initially with **Aspirin 75 mg, Clopidogrel 75 mg and therapeutic enoxaparin**. Further investigation include MRI head (Figure 4) has confirmed new onset stroke. Her Both carotid doppler scan was normal. Her treatment has been changed to **Therapeutic enoxaparin and Aspirin.** She has received an acute stroke care and rehabilitation. She remains independent.

She has continued **her anticoagulation and Aspirin 75 mg for 6 months,** Bisoprolol 5 mg, atorvastatin 40 mg.
In long term, she has had anticoagulation alone due to Atrial fibrillation.

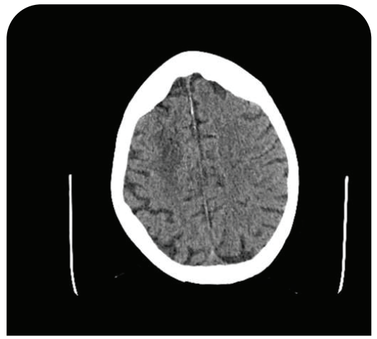

Figure3. CT head.

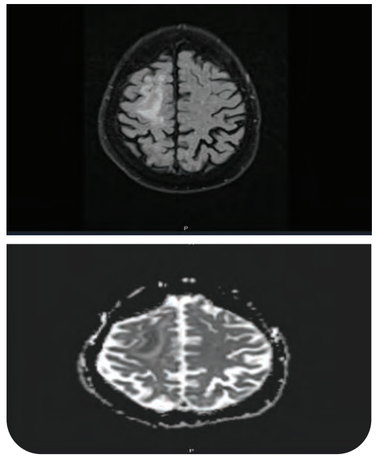

Figure 4 MRI head.

DISCUSSION

Atrial Myxoma is **often presented in young age group** (Lyer et al 2016) Furthermore, Khan et al reported 20-year-old common cardiac tumors is myxoma (khan et al 2018). In view of our patient presentation has been in asymptomatic **81 years old.**
Most common presentation for cardiac myxoma is embolization. This often presented with hypothesia, hemiparesis and facial paraesthesia due to occlusion of middle cerebral artery (Yuan 2015). It has been the case inn our patient presentation.
The question remains to answer what is best treatment option in such cases. Conservative treatment has not considered. O'Rourke et al stated that surgical option is the agreed management line (O'Rourke et al 2003).
In case where not associated with other medical condition, aspirin is option of treatment for three months (Lyer et al 2016). The management for pure atrial fibrillation is traditionally anticoagulation and rate control , In case like ours , no clear guideline has dictated , nevertheless, the best approach has been multidisciplinary approach and patient agreement has carried out as best strategies.
Post operative complication is not uncommon. Sharma et al stated there are nearly postoperative mortality of 2.2%, atrial fibrillation 23%-24, postsurgical neurologic complications were seen in 3% of cases, and re-exploration for bleeding was required in 5% of case (Sharma et al 2019).
It remains of further question in our case that appendage occlusion plus aspirin is another long-term acceptable treatment and this needs to be research further with limitation of reported case.

CONCLUSIONS

There were no clear guideline to best treatment, however, atrial Myxoma treated of all time with surgical removal. Long term antiplatelet was not recommended postoperative

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