AN ABNORMAL COMMUNICATION: APICAL VENTRICULAR SEPTAL DEFECT POST-INFARCTION

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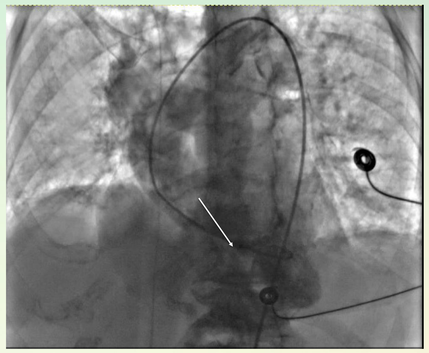
INTRODUCTION

- Apical VSDs are a rare complication of anterior MIs typically occurring 3-5 days after injury with the risk increasing in older hypertensive females
- We present a case of a fatal post-MI apical VSD

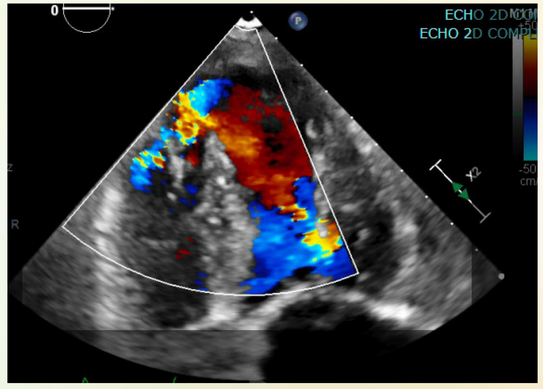
CASE SUMMARY

- An 89-year-old female without significant medical history presented with fatigue and abdominal pain
- Initial EKG revealed evolution of Q-waves in the precordial leads with ST elevations
- Emergent coronary angiography showed 100% LAD artery occlusion
- LV ventriculography identified a distal apical VSD
- Given these findings and subacute presentation, no intervention was attempted
- Mechanical support was provided with an IABP
- Echocardiogram showed a significant Left-to-Right shunt at the apical septum
- She developed multi-organ failure, was deemed to high risk for operative repair, and was transitioned to comfort measures

INVESTIGATIONS



Distal apical VSD (white arrow) seen on LV ventriculography



Distal apical VSD seen on apical four-chamber transthoracic echocardiography

DECISION MAKING

- Post-MI VSD mortality rate approaches 100% without surgical intervention
- Timing of surgery can be difficult, however it is often delayed to allow necrotic tissue to recover for surgical patch closure
- Initial management involves afterload reduction with mechanical support and medical treatment
- If patients continue to worsen prior to surgical repair candidacy, options include heart transplant or palliative measures

CONCLUSION

- There should always be a high index of suspicion for mechanical complications in late presenting MIs
- For non-surgical candidates, early palliative therapy should be attempted

REFERENCES

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