

Case Report: Stellate Ganglion Block for Refractory Ventricular Arrhythmia

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Background/Introduction

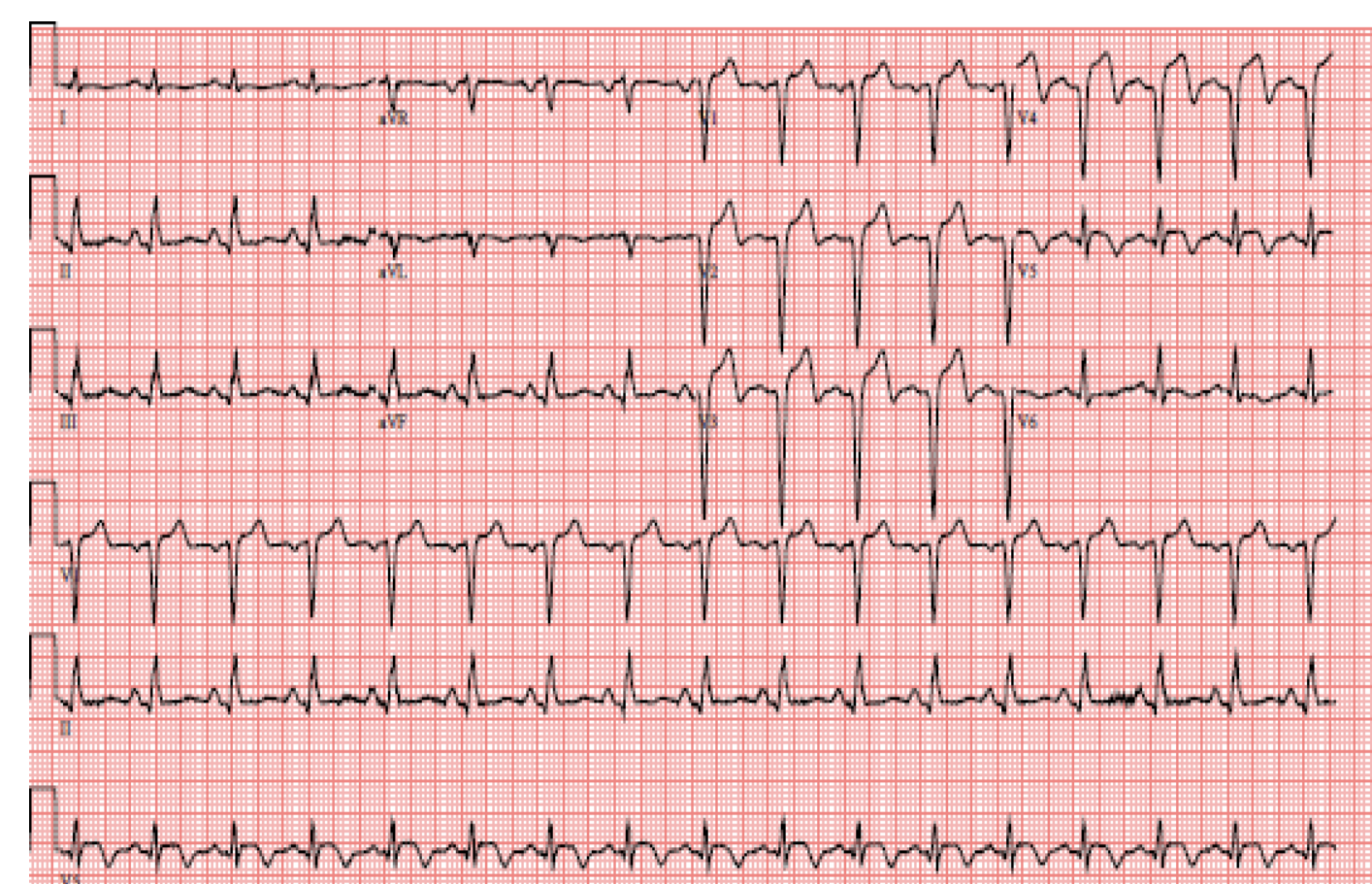
- Ventricular arrhythmias are associated with significant morbidity and mortality
- 30% of sudden cardiac death cases
- Mainstay treatments are antiarrhythmic drugs with ablations becoming increasingly utilized
- Often difficult to manage in refractory cases which can lead to sudden cardiac death in outpatient setting
- Stellate ganglion block has been described as temporary yet effective tool for management

Purpose

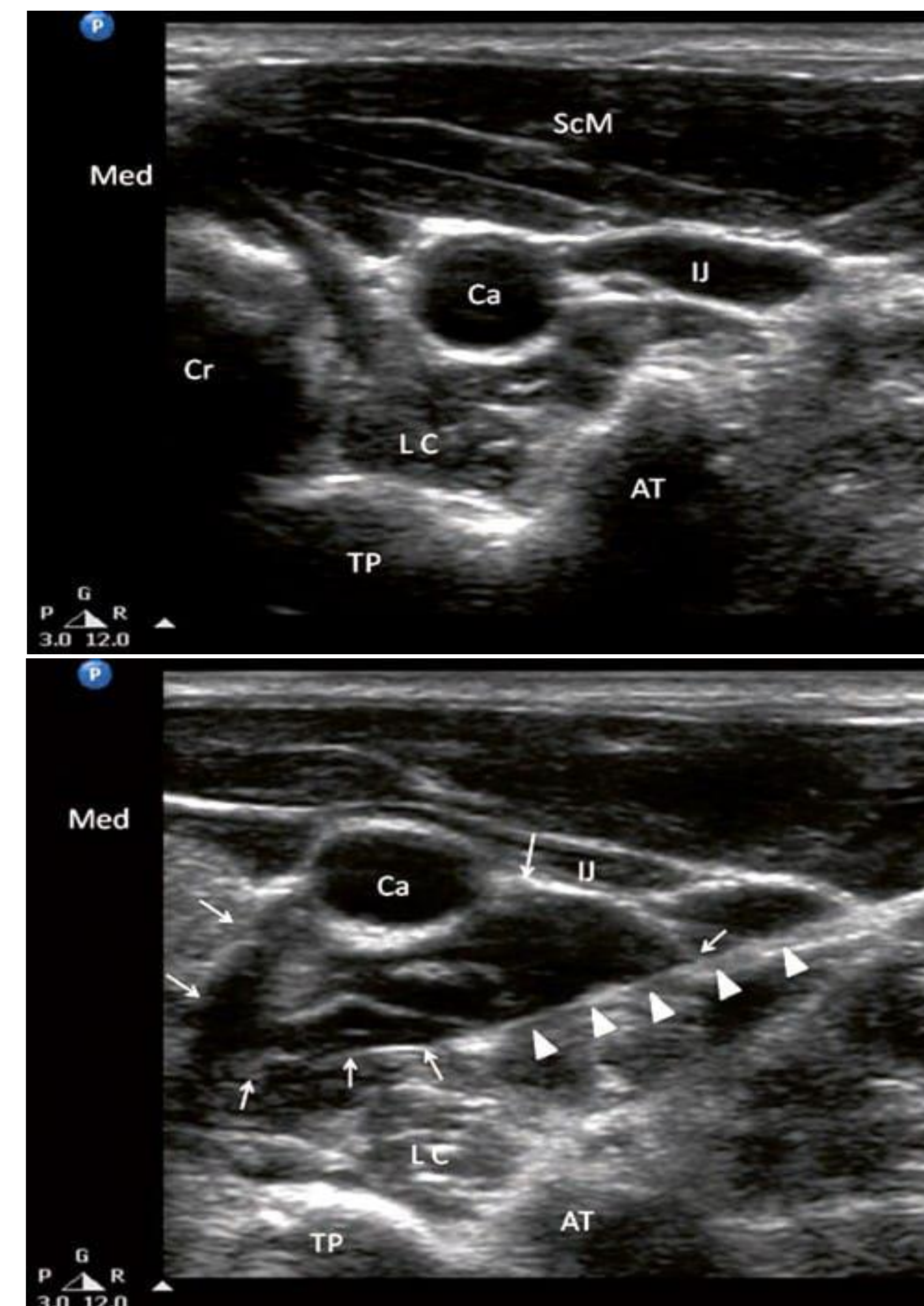
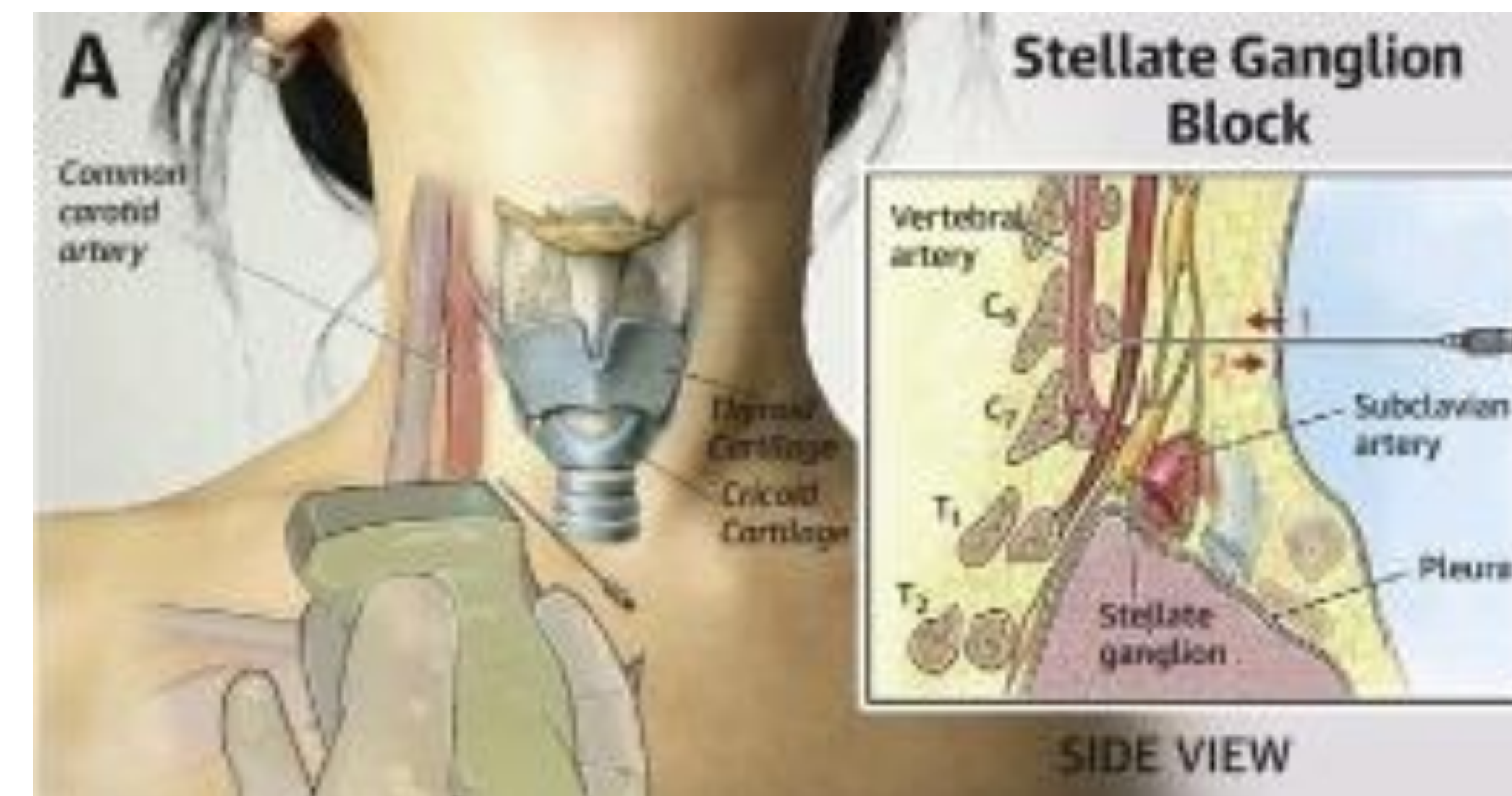
- Discuss stellate ganglion blocks as an adjunct to managing refractory ventricular tachycardias

Case

- 67 yo M admitted for ST elevation MI
- Upon arrival to facility had pulseless VT arrest. Received 8 mins of CPR, multiple defibrillations prior to ROSC
- Refractory despite amiodarone, lidocaine, procainamide infusions requiring > 5 defibs prior to block
- Stellate ganglion block due to refractory VT and inability to wean sedation
- Extubated within hours of block successfully



Anatomy and Approach



Discussion / Conclusion / Future Directions

- Mechanisms of Action
 - Sympathetic output to heart
 - Longer term (past duration of local anesthetic) thought to be secondary to neuromodulation
- Key Considerations
 - Horner's syndrome
 - Complications
 - Vertebral artery injury
 - Mediastinitis with esophageal injury
 - Inadvertent CSF injection
- Efficacy
 - 50-90% reduction in amount of ventricular arrhythmias
 - Increased with bilateral blocks vs left sided only
- Catheter placement
- Future implications

References

