

Case Presentation
21-year-old female presented with chronic facial pain and flushing refractory to conservative treatment - Absence of vasomotor symptoms in hands, groin, and feet - Neurosurgery evaluated her for possible thoracic sympathectomy for hyperhidrosis - Referred to Pain Management for prognostic and diagnostic right stellate ganglion block - Patient tolerated the procedure well - At one year follow-up, the patient reported continued symptomatic relief of vasomotor symptoms and currently does not require sympathectomy
Procedure Description
- Using fluoroscopy, Chassaignac's tubercle was identified, and a 25-gauge, 1.5-inch needle was inserted perpendicular to the carotid artery after traction. - The needle made contact with the tubercle, was retracted slightly (1-2 mm), and after ensuring negative aspiration, three rounds of Bupivacaine were administered (1mL, 4mL, 5mL). - Throughout the procedure, there were no medical side effects, complications, or paresthesias. - At the one year follow-up, the patient reported substantial symptom relief and did not require sympathectomy.

Intraoperative Fluoroscopy

Fluoroscopic image taken intra-operatively during stellate ganglion block depicting the needle overlying the anatomic landmark of Chassaignac’s Tubercle

Discussion
- Primary hyperhidrosis: Caused by autonomic nervous system disruption, leading to eccrine sweat gland overactivity. - Secondary hyperhidrosis: Due to underlying medical conditions, medication side effects, or temporary increased metabolic demand. - Hyperhidrosis affects approximately 4.8% of the US population, equivalent to around 15.3 million individuals, with 70% experiencing severe excessive sweating in at least one body area. - Hyperhidrosis can lead to skin infections, skin changes, unwanted body odor, and adverse impacts on mental health. - Conservative therapies include addressing the underlying cause, using antiperspirants, wearing breathable clothing, and medications that reduce cholinergic or sympathetic output. - Stellate ganglion block may be considered for cases resistant to conventional treatment to reduce sympathetic hyperactivity.
Conclusion
Differential diagnoses of hyperhidrosis should include both primary and secondary causes as well as physiologic and pathologic considerations. Hyperhidrosis is a condition affecting millions of Americans each year and can result in a significant decline in quality of life. Conservative treatments should be initiated while attempting to identify an underlying cause. If conservative measures fail, a stellate ganglion block may be considered, having the potential to treat refractory hyperhidrosis. Few cases of refractory primary hyperhidrosis treated with a sympathetic block have been reported and further research and awareness on the subject is warranted.
References
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