

Conference

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Title

Pain and Pulmonary Relief: A Case of Reproducible Asthma and Rhinosinusitis Symptom Resolution Following Stellate Ganglion Block

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Case Diagnosis

Asthma, rhinosinusitis, CRPS

Case Description

A 35-year-old woman with complex regional pain syndrome (CRPS) following a radial head fracture underwent a stellate ganglion block (SGB), resulting in marked clinical improvement with her CRPS Severity Score (CSS) decreasing from 12 to 4. Notably, she reported near-resolution of her asthma symptoms as corroborated by three clinically-validated asthma severity questionnaires. She also experienced improvement of her chronic rhinosinusitis symptoms. This led to substantial improvement in her quality of life, including a return to full-time employment. These benefits persisted for 9 months before partial recurrence of her CRPS and rhinosinusitis. A repeat SGB reproduced the therapeutic effect for both conditions.

Discussion

SGB is hypothesized to influence immunologic and physiologic processes through autonomic modulation. Animal models suggest that SGB may reduce airway hyperreactivity, but this association has not yet been adequately evaluated in the clinical setting. Only one recent English-language case report has demonstrated this effect clinically, but its generalizability is limited by the patient's asthma occurring as a secondary feature of eosinophilic granulomatosis with polyangiitis. Therefore, this is the first modern English-language case report of asthma symptom relief after SGB in a patient without systemic autoimmune disease. This case contributes to the limited body of international literature on this association and has intriguing implications for the "unified airway" hypothesis linking rhinosinusitis and asthma.

Conclusions

Sympathetic dysfunction has long been implicated in CRPS, but there has been increased interest in using sympathetic blockade for non-pain indications in recent years. There is a promising research precedent on SGB as a treatment for isolated asthma in Asia and Europe but no substantial clinical data has been produced in the USA on this topic since the 1950s. This easily-replicated case highlights a meaningful gap in the literature that warrants systematic study of SGB as a potential adjunctive treatment for asthma and rhinosinusitis.