



講師

丁英哲 Ying-Che Ting

授課主題

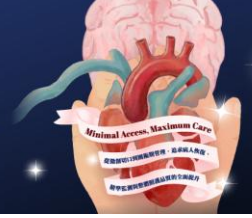
Sympathectomy for Refractory VT

摘要

Background: Cardiac sympathetic denervation (CSD) has emerged as a rescue therapy for refractory ventricular arrhythmias (VA) when antiarrhythmic drugs and catheter ablation fail. However, surgical experience remains limited, particularly in critically ill patients requiring mechanical circulatory support (MCS). We report our initial experience with thoracoscopic CSD and evaluate its feasibility and short-term clinical outcomes.

Methods: We retrospectively reviewed six consecutive patients with refractory ventricular tachyarrhythmias who underwent video-assisted thoracoscopic CSD between December 2024 and June 2026. Three patients underwent left-sided CSD and three underwent bilateral CSD according to arrhythmia severity and multidisciplinary consensus. Operative feasibility, perioperative complications, Horner syndrome, arrhythmia response, hospital survival, and follow-up outcomes were analyzed.

Results: Three patients required VA-ECMO and two required intra-aortic balloon pump support before surgery. Thoracoscopic CSD was successfully completed in all patients without conversion, major bleeding, or procedure-related mortality. Horner syndrome was observed in four patients, indicating adequate sympathetic denervation. Complete suppression of ventricular arrhythmias was achieved in four patients, while one additional patient demonstrated a marked reduction in ventricular tachycardia burden despite persistent recurrence. Three patients survived to hospital discharge with sustained arrhythmia control during follow-up. The remaining three patients died from progressive heart



failure, hypoxic-ischemic encephalopathy, or multiorgan failure rather than surgical complications.

Conclusions: Thoracoscopic CSD is a feasible rescue strategy for medically refractory ventricular arrhythmias, even in critically ill patients receiving MCS. Reduction of ventricular arrhythmia burden, rather than complete elimination of arrhythmias alone, should be regarded as a meaningful therapeutic endpoint. Earlier referral and multidisciplinary patient selection may further improve clinical outcomes.