Author Year; Country Score Research Design Sample Size	Methods	Outcome
Herrity et al. 2021 USA Prospective controlled trial Level 2 N=65	**Population:** N=85, 71% male, 29% female Cross-sectional cohort: 65, mean age: 37 years Usual care cohort: 10, mean age: 10 years Interventional cohort: 10, mean age 29 years All motor complete SCI **Treatment:** All participants received two urodynamic assessments at least 5 months apart (usual care). Those in the intervention group had a 16-electrode array surgically implanted at the T11-L1 vertebrae level and underwent a total of 160 sessions of activity-based recovery training (ABRT-scES); 6 of them receiving alternating stand and step recovery-based training with scES. **Outcome Measures:** Blood pressure	1. In the interventional group, sBP responses to bladder distension did not differ following ABRT-scES (Pre-training, 131 ± 15 mmHg; Post-training, 140 ± 13 mmHg), nor were there significant changes at follow-up (149 ± 26 mmHg) compared to baseline or post-training. 2. The change in systolic blood pressure from pre-fill values (catheters in place) to values captured at the point of maximum cystometric capacity during the study indicates that ABRT-scES did not attenuate bladder-distention associated increases in systolic blood pressure (Pre-training change, 22 ± 20 mmHg; Post-training change, 25 ± 11 mmHg) ($p<0.05$). 3. Participants receiving ABRT-scES had significantly lower sBP responses to bladder distention post-training (140 ± 13 mmHg, $p<0.05$) compared to those in usual care (157 ± 18 mmHg. 4. The greatest blood pressure responses (>150 mmHg) were present in those using suprapubic catheters and having bladder capacity less than 300 ml [n = 17, (26%) of all participants].

Author Year; Country Score Research Design Sample Size	Methods	Outcome
		5. Blood pressure responses at maximum capacity were similar between those performing intermittent catheterization vs. those with suprapubic catheters (148 ± 25 mmHg vs. 159 ± 18 mmHg, respectively).
Pino et al. 2022 USA Prospective cohort study Level 2 N=14	**Population:** N=14, 11 males, 3 females Mean age: 38 years All participants were AIS grade A or B **Treatment:** 16-contact epidural paddle lead was implanted at the level of T12, then participants underwent tilt tests while strapped to an automated tilt table. After 10 mins of recording baseline BP and ECG in supine position, participants were passively moved to a 70-degree head-up tilt (HUT). Participants remained in this position until orthostasis symptoms were demonstrated, at follow up, scES was applied until BP normalised or until symptoms of orthostatic intolerance were ameliorated. If sBP remained >150 mmHg for ≥30 s, this was deemed representative of an episode of AD. **Outcome Measures:** Blood pressure, heart function, ECG	1. Did not observe an increased frequency or severity of AD with scES. 2. Maximum continuous SBP readings (mean (SD)) during supine (132 (11) mmHg), HUT (mean (SD) 127 (16) mmHg), and HUT with scES conditions (mean (SD) 128 (14) mmHg) were comparable. 3. The mean (SD) change in SBP between the end and start of each scES program at maximum intensity was 1 (8) mmHg. 4. Percentage time with SBP > 150 mmHg for ≥ 30 s was not significantly different between supine, HUT, and HUT with scES conditions. 5. Two out of ten participants experienced elevations in sBP > 150 mmHg for ≥30 s during the application of scES.

Author Year; Country Score Research Design Sample Size	Methods	Outcome
Samejima et al. 2023 USA Case series Level 4 N=3	**Population:** N=3, 2 males with traumatic cervical SCI, 1 female with traumatic thoracic SCI AIS A: 1 AIS B: 2 Age: 23-41 years **Treatment:** Baseline BP and HR were measured and an ABPM device was applied to record sBP, dBP, and HR in each participant, along with cardiovascular parameters ever 15 minutes during the daytime and every 60 minutes during the nighttime. Digital anorectal stimulation (DARS) was delivered to each participant and hemodynamic data, BP, and HR were recorded to monitor cardiovascular safety and AD severity. DARS was performed twice without eSCS and twice with eSCS initiated 60 seconds prior to DARS and sustained for 60 seconds after DARS was completed. **Outcome Measures:** BP, HR (incidence of AD)	1. The effect of eSCS on resting cardiovascular parameters showed that there were minimal changes in resting SBP, DBP and HR between the stimulation conditions in all participants. DARS without eSCS induced an elevation in SBP of greater than 20 mmHg (Participant 1: 31 ± 14 mmHg, Participant 2: 22 ± 1 mmHg, Participant 3: 26 ± 2 mmHg) and a simultaneous reduction in HR, indicative of AD. 2. Active eSCS during DARS prevented AD, as evidenced by a marginal elevation in SBP of less than the 20 mmHg threshold for AD diagnosis (Participant 1: 16 ± 0.2 mmHg, Participant 2: 13 ± 3 mmHg, Participant 3: 8 ± 5 mmHg) and a minimal reduction in HR