Author Year			
Country Research Design Score Total Sample Size	Methods	Outcome	
Oraee-Yazdani et al., 2021 Iran Pre-Post N=11	Population: Mean age: 29.09±9.41 yr; Gender: males=9, females=2; Level of injury: cervical=4, thoracic=7; Severity of injury: ≥ 3 and ≤ 12 mo. Intervention: The patients received an intrathecal autologous combination of Mesenchymal stem cell (MSCs) and Schwann cells (SCs); and were followed up for 12 months. Outcome Measures: American Spinal Injury Association's (ASIA) sensory-motor scale, spinal cord independence measure (SCIM- III), subjective changes and adverse events (AE) (assessed by a checklist developed by the authors); electromyography (EMG), nerve conduction velocity (NCV), magnetic resonance imaging (MRI), and urodynamic study (UDS) were conducted for all the patients at the baseline, 6 mo, and 1 yr post-intervention.	 Light touch AIS score alterations were approximately the same as the pinprick changes (11.6 ± 13.1 and 12 ± 13, respectively) in 50% of the cervical and 63% of the lumbar- thoracic patients, and both were more than the motor score alterations (9.5 ± 3.3 in 75% of the cervical and 14% of the lumbar- thoracic patients). SCIM III total scores (21.2 ± 13.3) and all its sub-scores ("respiration and sphincter management" (15 ± 9.9), "mobility" (9.5 ± 13.3), and "self-care" (6 ± 1.4)) had statistically significant changes after cell injection (ps<0.05). The most notable positive, subjective improvements were in trunk movement, equilibrium in standing/sitting position, the sensation of the bladder and rectal filling, and the ability of voluntary voiding. Safety evaluation revealed no systemic complications, and radiological images showed no neoplastic overgrowth, syringomyelia, or pseudo- meningocele. 	
Vaquero et al., 2018a Spain Pre-Post N=6	Population: Mean age: 39 yr; Gender: Males=6; Injury etiology: SCI-trauma=6; Mean time since injury: 13.7 yr; Level of severity: AISA-A=3, AISA-B=2, AISA-D=1; Lesion location: D5=2, D3=1, D4=1, D8=1, L1=1. Intervention: Cell therapy medicament (NC1, PEI number 12-141), developed by the Spanish Agency of Medicament and Health Products. The solution was injected into the syrinx over the course of one month. Outcome Measures: Alteration to genome of expanded cells,	 No genome alterations were detected during the cell expansion process. Pin prick scores on the ASIA measure improved (p=0.06), this effect was only observed at 6 mo follow-up. Scores on the IANR-SCIFRS (spinal cord function) increased at 3 mo follow-up (p=0.06), and 6 mo follow- up (p=0.06). There were no significant differences in VAS score post- injection (p=0.25), although patients self-reported a decrease in neuropathic pain. 	

Author Year Country Research Design Score Total Sample Size	Methods		Outcome
	ASIA, SCI Functional Rating Scale of the International Association of Neurorestoratology (IANR- SCIFRS), Visual Analog Scale (VAS), Penn and modified Ashworth scale (MAS), Geffner scale, and neurogenic bowel dysfunction scale (NBD).	5. 6. 7.	There were no significant differences in levels of spasticity or spasms experienced by patients post-injection (MAS, p=0.50). The Geffner scale (bladder dysfunction) showed no significant differences post-injection (p=0.25). The NBD scale showed no significant differences post- injection (p=0.12), although four patients observed an improvement.