

Mesenchymal stromal cell therapy for **Spinal cord injury**

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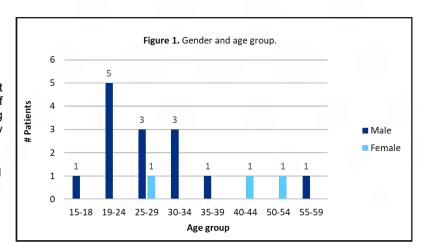
Patient progression report | January 2022 - December 2022



Clinical Care Program

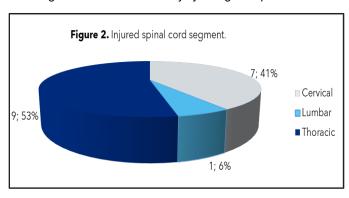
The clinical protocol for spinal cord injury patients at BioXcellerator includes four intrathecal applications of mesenchymal stromal cells (MSCs) at 3-month intervals. During the year 2022, 17 patients* were treated; the distribution by gender and age is shown in figure 1.

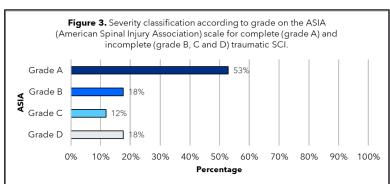
13 patients agreed to participate in the program, of which 11 (84.6%) completed the full follow-up.



Injury classification

According to the location of the injury along the spinal cord and its severity, see figures 2 and 3.





Activities of daily living

The Barthel index is used to measure functional independence in terms of self-care and mobility. A higher score represents greater functional independence for daily activities.

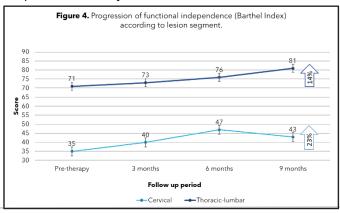


Figure 4. Improvement at 9 months post-therapy with an average increase of 8 points (\uparrow 23%) in patients with cervical injury and 10 points (\uparrow 14%) in patients with thoracolumbar injury.



Motor improvement

Motor impairment is determined by the ASIA score.

The score ranges from 0 to 100, Higher score = greater improvement or recovery.

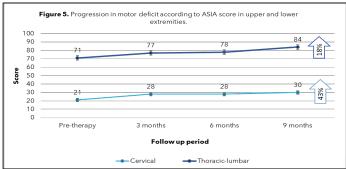


Figure 5. Improvement at 9 months post-therapy with an average of 9 points (\uparrow 43%) in patients with cervical injury and 13 points (\uparrow 18%) in patients with thoracolumbar injury. The most relevant improvement was evidenced after the first application.

Sensitivity improvement

Sensory impairment is assessed by fine touch or pinprick of the upper and lower extremities. The score ranges from 0 to 224, Higher score = the greatest improvement or recovery.

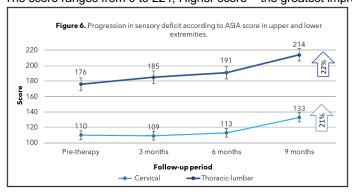


Figure 6. Improvement at 9 months post-therapy with an average increase of 23 points (\uparrow 21%) in patients with cervical injury and 38 points (\uparrow 22%) in patients with thoracolumbar injury. The most relevant improvement was evident after the third application.

Health-related quality of life

It was assessed with the SF-36 health questionnaire. The score ranges from 0-100, Higher score = more favorable health status.

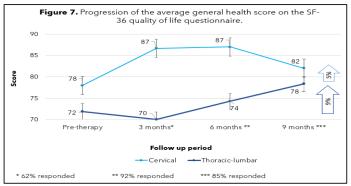


Figure 7. Improvement at 9 months post-therapy with an average increase of 4 points (\uparrow 5%) in patients with cervical injury and 6 points (\uparrow 9%) in patients with thoracolumbar injury.

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^{*} Patients gave their consent to follow them through the InCytes web platform and publish their clinical data. We plan to continue monitoring patients and will issue updates when additional data become available.