

Autologous Stem Cell Transplantation by lumbar puncture: A safety Follow-up in 870 Patients

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Summary

Background

Autologous stem cells show promise in preclinical animal models as a cell transplantation therapy for repair of the injured spinal cord, to supplement neural cells in Parkinson, Multiple Sclerosis, Cerebral Palsy and Stroke patients. The procedure of first choice to implant stem cells is lumbar puncture. This procedure is safe and minimal invasive. This paper summarizes the experiences with autologous stem cell therapy and reports the results of 870 lumbar punctures used to inject autologous stem cells into the intrathecal space.

Methods and Results

A short review of the recent literature looking at the aspect side effects and safety and an oversight of the side effects, reported by post treatment surveillance of patients from Xcell-center Germany. XCell-Center evaluates the side effects of a transplantation with autologous stem cells, using a standard Post Treatment Survey. In this paper, 870 patients with a lumbar puncture as procedure for delivery of the stem cells were reviewed for side effects, using the results of the Post Treatment Surveys. The results of these patients are compared with the side effects after lumbar puncture, reported in literature.

Conclusions

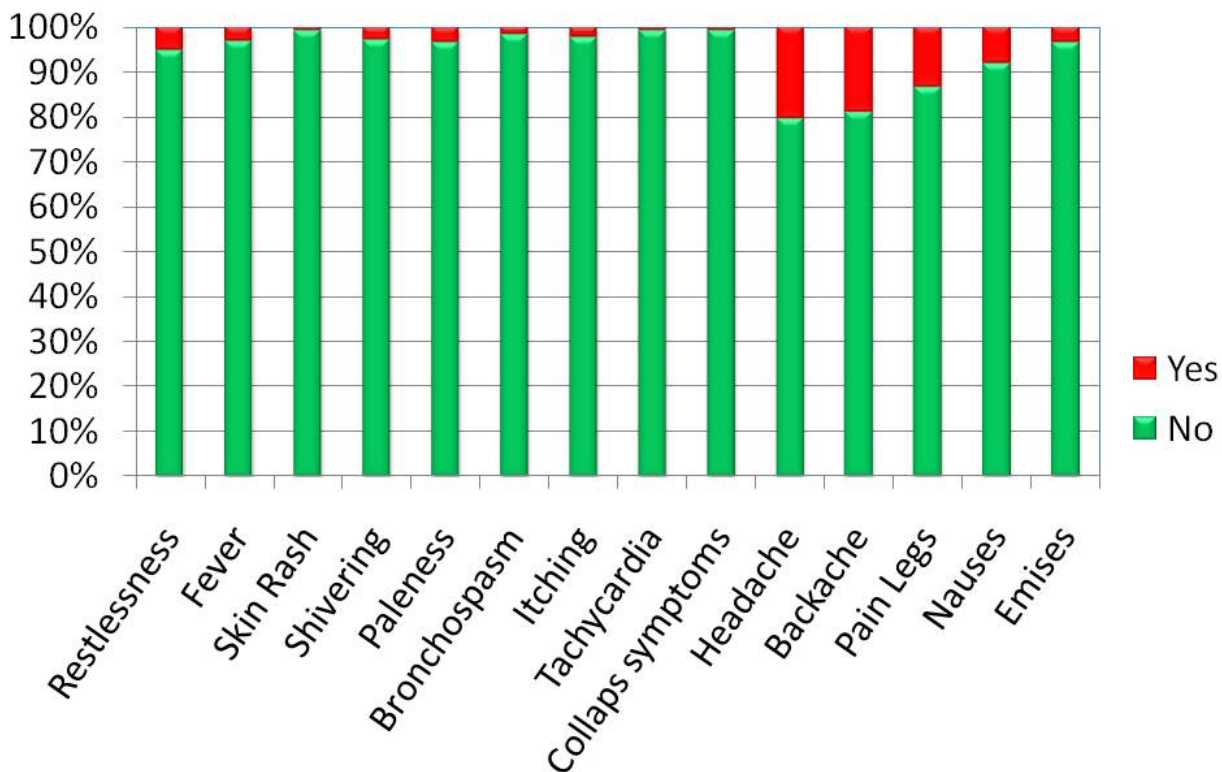
Within XCell-Center, the incidence of Post Dural Puncture Headache is estimated as low as 11.9% (103 cases out of 870 patients). There were no reported side effects concerning fever, skin rashes, shock or tachycardia. Therefore, the transplantation of autologous stem cells seems to be safe and the lumbar puncture is a safe and non-invasive procedure to inject the stem cells into the intrathecal space. The Post Treatment Survey is a useful tool to monitor the safety of the procedures.

Key Words

Autologous stem cells; lumbar puncture; therapy, safety;

Graphics

**Diagram 1: Overview Incidence Side Effects Survey Stem Cell treatment by Lumbar Puncture
XCell-Center Cologne and Dusseldorf (n=870 patients)**



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